Green Power Technologies · 840 First Avenue Suite 300
King of Prussia, PA 19406 · www.bertbrain.com

BERT-110

User Manual

Revision 1.4

6 Mar 2011

Technical Support Information

E-mail: support@bertbrain.com

FCC Notice: This equipment has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15, Subpart B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warranty Information

Your BERT-110 will be repaired or replaced, at Green Power Technologies option, if it proves to be defective in material or workmanship under normal use, during warranty period ("Warranty Period") set forth below, effective from the date ("Date of Purchase") of original purchase of the product. This warranty is good only to the original purchaser of the product and effective only when used in the United States.

Warranty Period:	**How Service is Handled:**
Parts: One Year from the Date of Purchase. Replacement Units and Repair Parts may be new or remanufactured. Replacement Units and Repair Parts are warranted for the remaining portion of the original unit's warranty period.	Please retain dealer's dated bill of sale or delivery ticket as evidence of the Date of Purchase for proof of warranty, and submit a copy of the bill of sale along with any returned units. Please call **484 690 3820** for details and on where to send returned units for replacement

WARRANTY: Seller warrants that the products which it manufactures and supplies hereunder shall conform to Seller's published specifications and shall be free from defects in materials and workmanship under normal use and service for the a period of twelve (12) months from the date of purchase (the "Warranty Period"). Seller's warranties shall not extend (i) to any items subjected to accident, misuse, neglect, alteration, improper handling, improper transport, improper storage, improper use or application, improper installation, improper testing or unauthorized repair or (ii) cosmetic problems or defects which result from normal wear and tear under ordinary use of the products. Seller makes NO WARRANTY as to experimental or developmental goods or goods not manufactured by Seller. Seller's warranties extend to Buyer only and to no other person or entity. Seller's warranties as hereinabove set forth shall not be enlarged, diminished or affected by, and no obligation or liability shall arise or grow out of, Seller's rendering of technical advice or services in connection with furnishing products.

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NONCONFORMING GOODS/WARRANTY RETURNS. Where Buyer timely and rightfully rejects acceptance of nonconforming goods and/or notifies Seller of a breach of warranty relating to goods supplied by Seller hereunder, Seller's sole and exclusive liability will be (at Seller's option) to repair, replace or credit Buyer's account (which credit may be applied by Seller against outstanding amounts owed by Buyer to Seller) with respect to any such goods returned to Seller during the applicable acceptance or warranty period, as the case may be, upon the following conditions: (a) Goods may not be returned without a return service authorization ("RSA") and will be refused and returned freight collect to the sender; (b) Goods returned shall be packed securely and shall be shipped freight prepaid (with duties, taxes and brokerage fees (if applicable), risk of loss and all other charges associated with the return of such goods being the responsibility of Buyer), together with a statement setting forth the claimed defect; (c) All returns under this paragraph shall be

shipped in accordance with all other instructions (if any) contained in the RSA; and (d) All return shipments will clearly indicate the RSA number on the mailing label. All goods returned under this paragraph shall be subject to examination by Seller. The failure of Buyer to comply with the provisions of this paragraph shall, at Seller's election, void Buyer's rights and remedies with respect to any such goods, and such goods may be returned by Seller to Buyer for full payment in accordance with the provisions of Buyer's order. In such an event, all freight, insurance, duties, taxes, brokerage fees and all other charges associated with the transportation of such goods (collectively "Transportation Charges") back to Buyer, including risk of loss, shall be the responsibility of Buyer. If Seller elects to keep any goods returned to Seller by Buyer which are determined by Seller to be free of defect or otherwise conforming to the warranties hereunder, such goods shall be subject to a restocking fee. Seller reserves the right to withhold Buyer's remedy hereunder with respect to nonconforming goods until Buyer has fully paid any past due amounts owed to Seller.

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Please call **484 690 3822** for general customer service.

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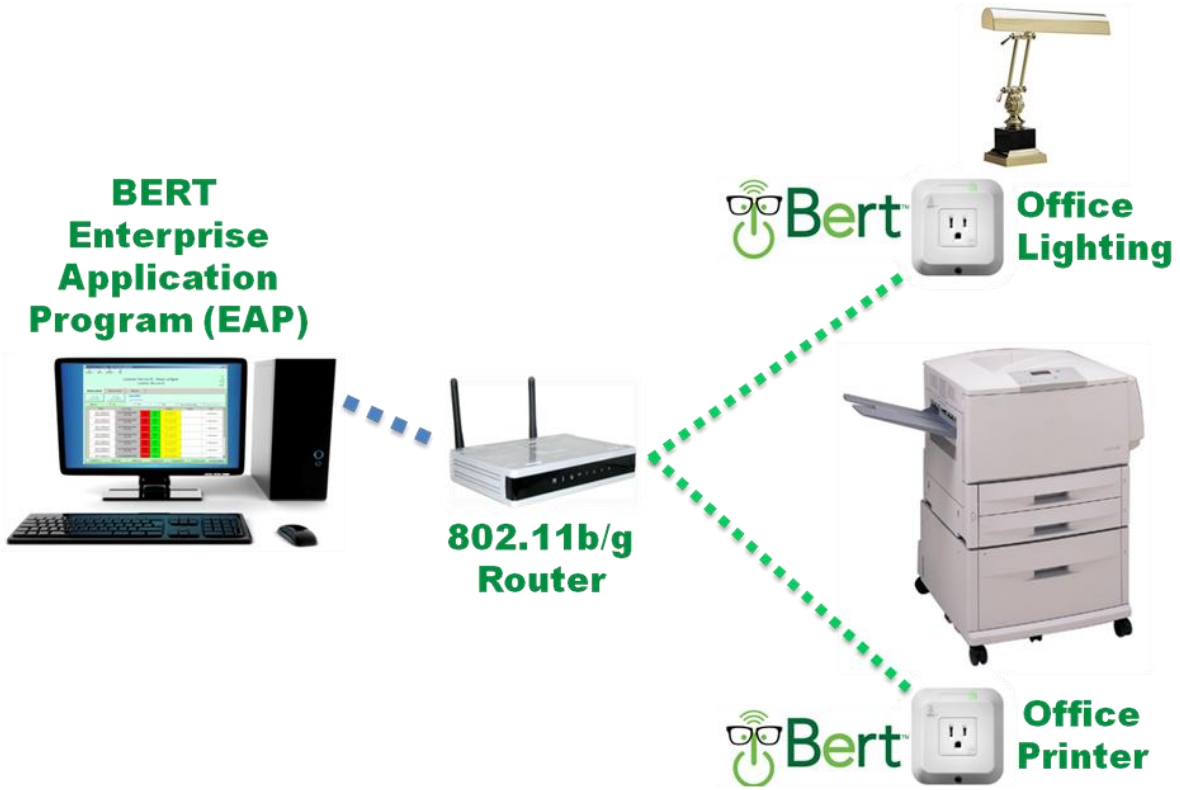
1 Introduction

Thank you for purchasing the latest in user empowering energy saving devices. The BERT-110 system includes an aesthetically pleasing wall plug unit and a simple yet sophisticated set of software tools to turn devices off and on remotely over an existing Wi-Fi® wireless network. The BERT-110 system converts a standard 120 volt AC wall plug into an intelligent plug. The software is capable of managing one to hundreds of BERT-110 units.

Figure 1 highlights the basic components of a BERT system. In this example, the BERT plugs are managing power to a printer and a desk lamp through an existing wireless router using the BERT Enterprise Application Program (EAP) running on a host computer.



1.1 **BERT 110 overview**

The BERT plug is a self contained elegant design that inserts into common U.S. or Canadian 3-prong 120VAC wall sockets. The BERT plug provides a power output plug for control of any desired device.

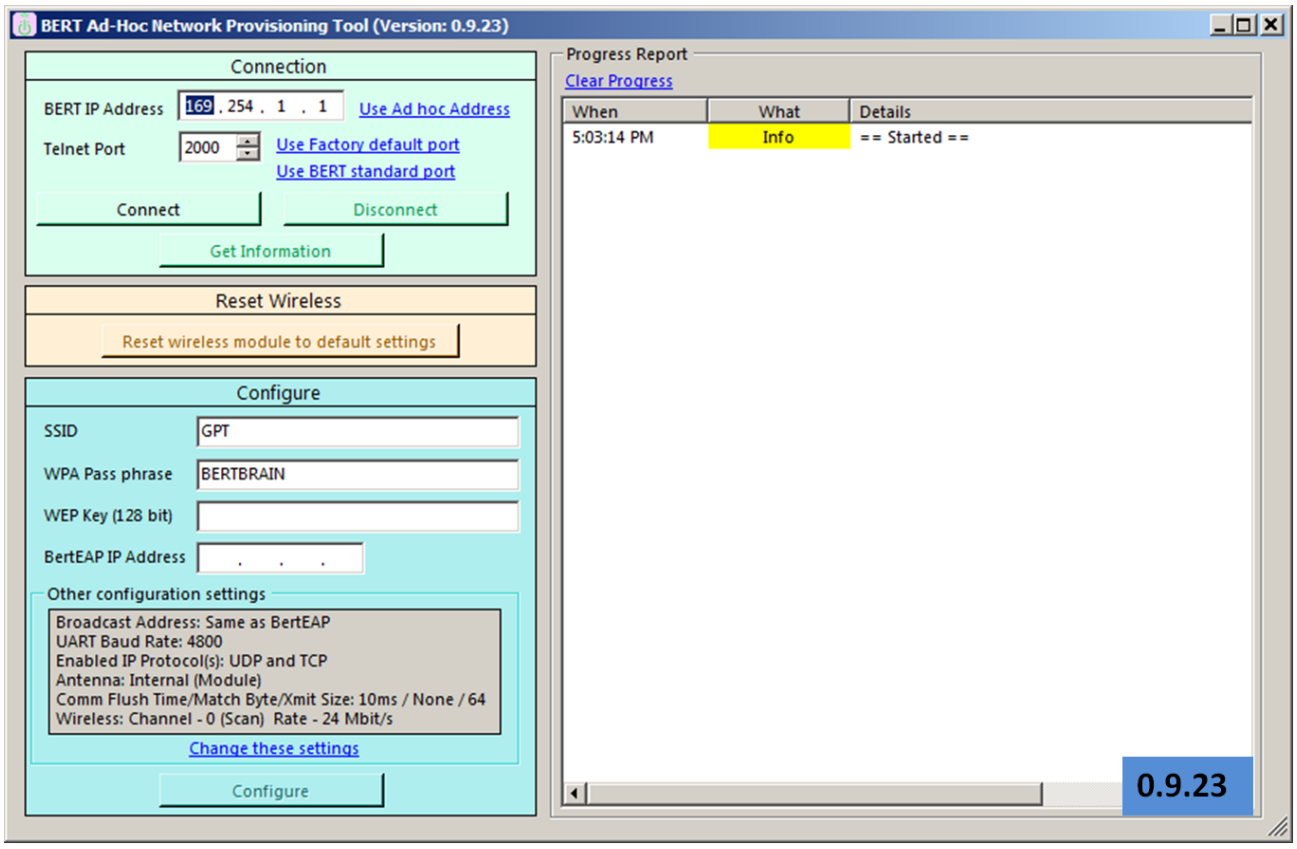
The BERT plug includes a Wi-Fi unit, on-board control software and a local ON/OFF power button.

Bert Says

"I will be up and running in no time. Let's take a quick look at the tools you will be using to interface with me."

1.2 **BERT provisioning tool overview**

BERT units arrive from the factory in a standard default wireless configuration with a static IP address, wireless channel and product identification. BERT users can quickly identify and configure each BERT plug with the provisioning software tool. During provisioning, users assign each BERT a unique name and provide their wireless network information.

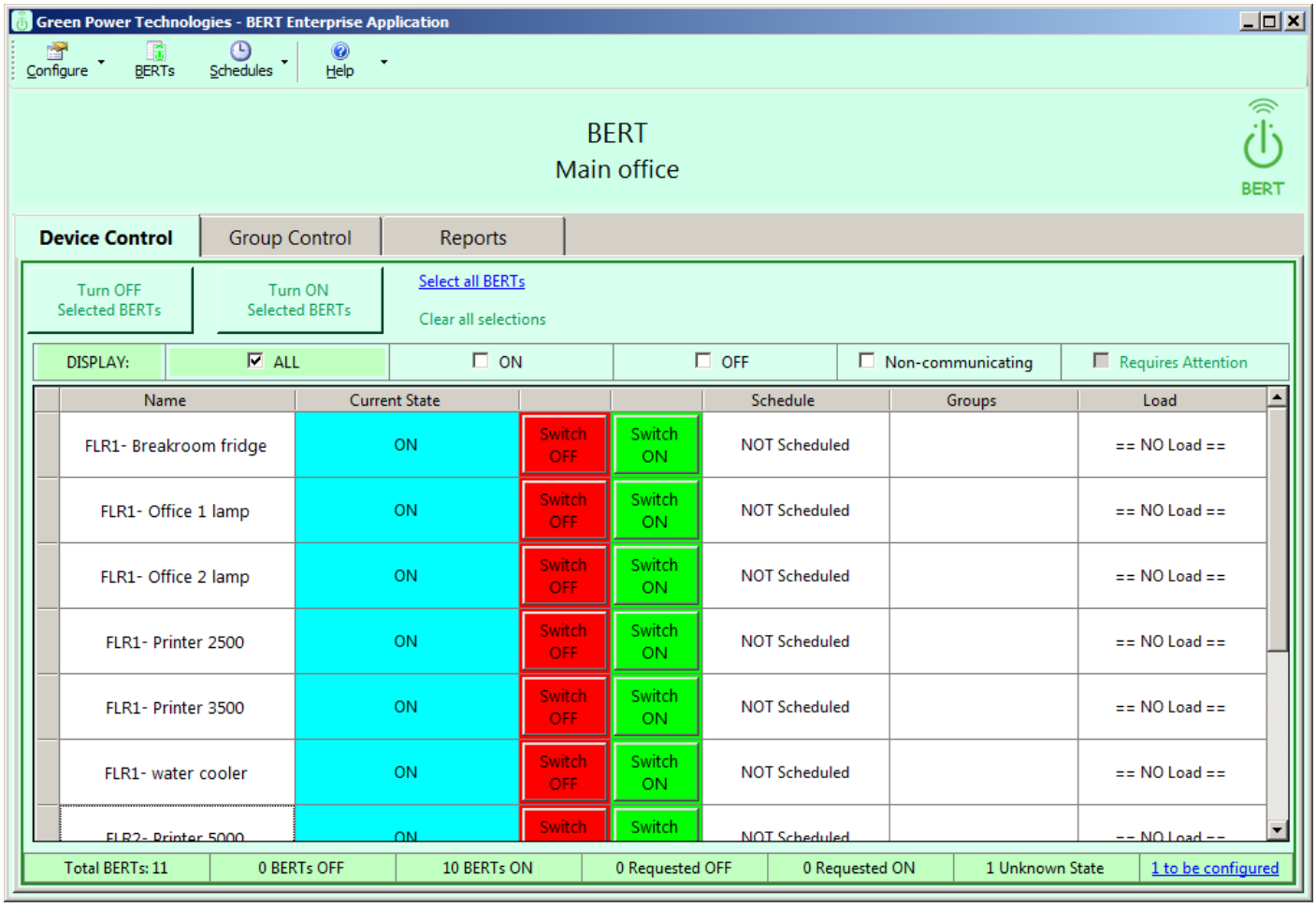


After completing the provisioning stage, BERTs are ready to start managing your electrons with the help of the BERT Enterprise Application Program (EAP).

1.3 BERT Enterprise Application Program (EAP) overview

The BERT Enterprise Application Program (EAP) is the main tool that you will use to interact with your BERT devices. The EAP manages BERTs individually or in groups, manages priority based on/off scheduling and provides power saving reports.

Multiple EAPs can manage the same BERT units on the same network. For example, a facilities manager and an office manager can each have the EAP installed on their computer. The EAP manages any scheduling conflicts based on user priority level.



2 Provisioning Tool

This section covers the installation and operation of the provisioning tool including the provisioning of BERT units. BERT units must be provisioned prior to being deployed on your wireless network. This tool establishes how BERT units will operate on your wireless network.

2.1 Installation

The provisioning tool is designed for installation on computers running Microsoft Windows® 7 or Microsoft Windows XP. The following installation highlights a Microsoft Windows 7 installation.

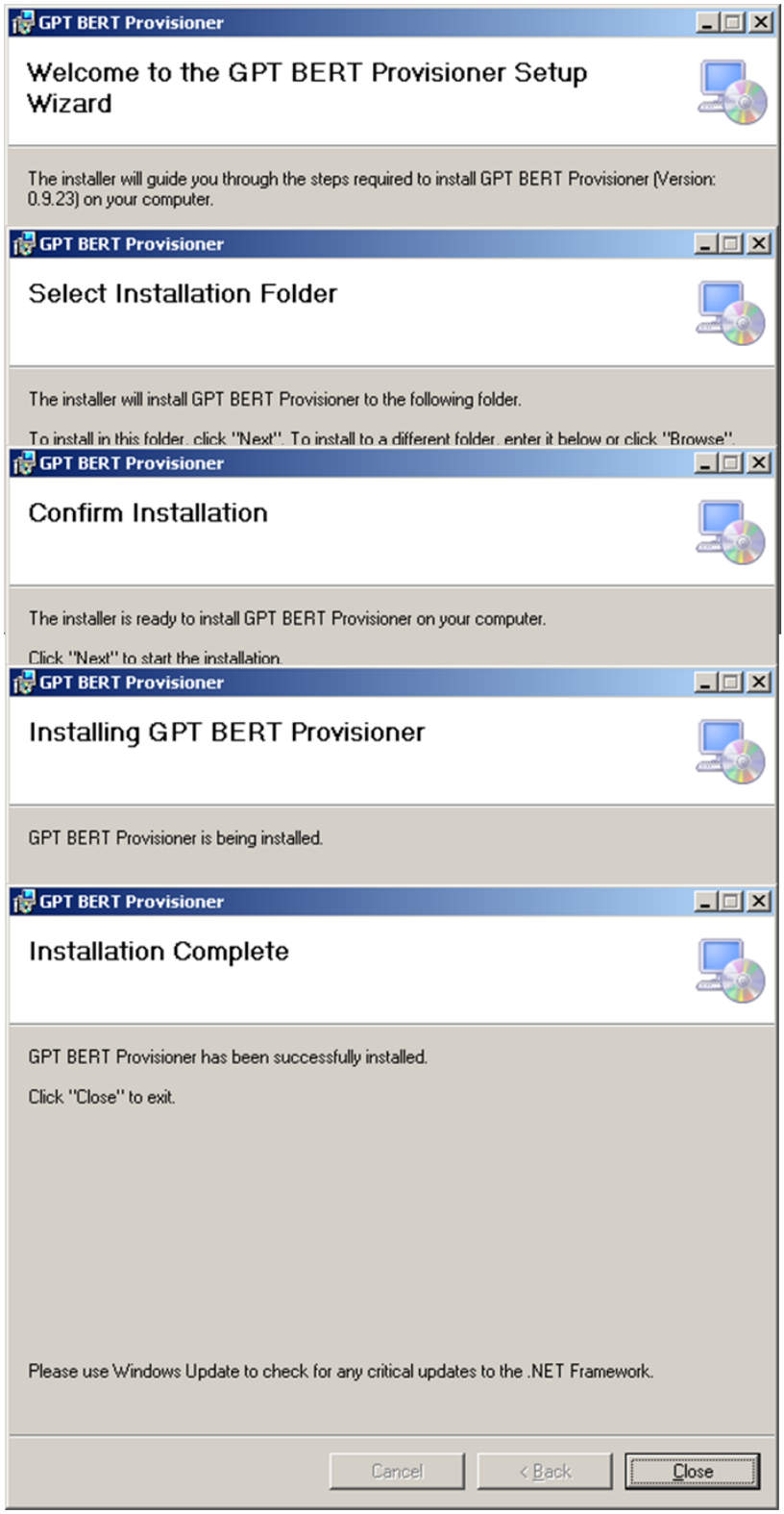
Microsoft .NET Framework 4 or later is needed for the installation.

Locate and run the BertProvisionSetup.msi installer package.

Follow the onscreen steps as shown in the next illustration.

If necessary to uninstall the provisioning tool, run the BertProvisionSetup.msi installer package again and select the option to remove the provisioning tool. The tool will then be uninstalled.

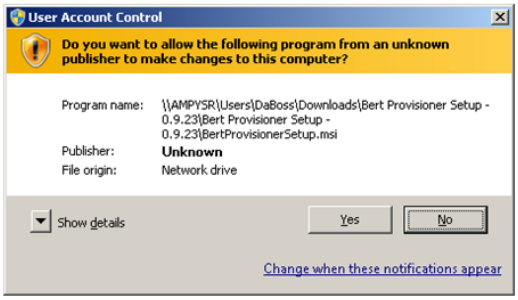
Installation process overview:


GPT BERT Provisioner
Welcome to the GPT BERT Provisioner Setup Wizard
The installer will guide you through the steps required to install GPT BERT Provisioner (Version: 0.9.23) on your computer.
GPT BERT Provisioner
Select Installation Folder
The installer will install GPT BERT Provisioner to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
GPT BERT Provisioner
Confirm Installation
The installer is ready to install GPT BERT Provisioner on your computer.
Click "Next" to start the installation.
GPT BERT Provisioner
Installing GPT BERT Provisioner
GPT BERT Provisioner is being installed.
GPT BERT Provisioner
Installation Complete
GPT BERT Provisioner has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel
< Back
Close

Click RUN at Security Warning

Open File - Security Warning
The publisher could not be verified. Are you sure you want to run this software?
Name: ...rovisioner Setup - 0.9.23\BertProvisionerSetup.msi
Publisher: Unknown Publisher
Type: Windows Installer Package
From: \\AMPYSR\Users\DaBoss\Downloads\Bert Provision...
Run
Cancel
Always ask before opening this file
This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust.
How can I decide what software to run?

Click YES at User Account Message


User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: \\AMPYSR\Users\DaBoss\Downloads\Bert Provisioner Setup - 0.9.23\Bert Provisioner Setup - 0.9.23\BertProvisionerSetup.msi
Publisher: Unknown
File origin: Network drive
Show details
Yes
No
Change when these notifications appear

2.2 **BERT provisioning setup**

BERT modules are all shipped from the factory with the same configuration. Each module needs to be configured individually prior to office wireless network use. This is accomplished by establishing an ad-hoc wireless network with each BERT using a Wi-Fi enabled computer and provisioning. Provision one unit at a time to prevent any confusion or network issues.

Bert Says

"BERT provisioning will be accomplished using an ad-hoc wireless connection between a BERT unit and your laptop."

STEP 1: Set the BERT in discovery mode.

Press and hold the ON button on the BERT unit for 15-20 seconds. After 15-20 seconds, the status LED will remain steadily lit.

LED lit steady

STEP 2: Discover the BERT ad-hoc device. Using your provisioning computer with Wi-Fi enabled, locate the BERT ad-hoc device. The device will be listed as **Wifly-GSX-xx**. Locate the device by viewing available networks *(for default Windows 7 platform, right click the bar indicator in the lower right hand notification area).*

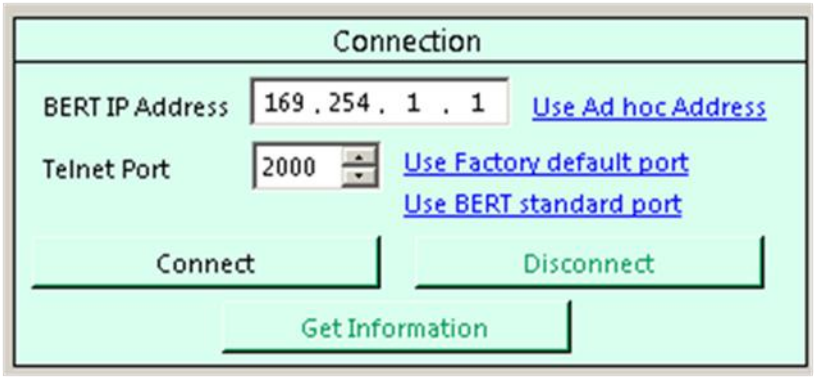
Locate Wifly-GSX-xx

Select and connect to Wifly-GSX-xx

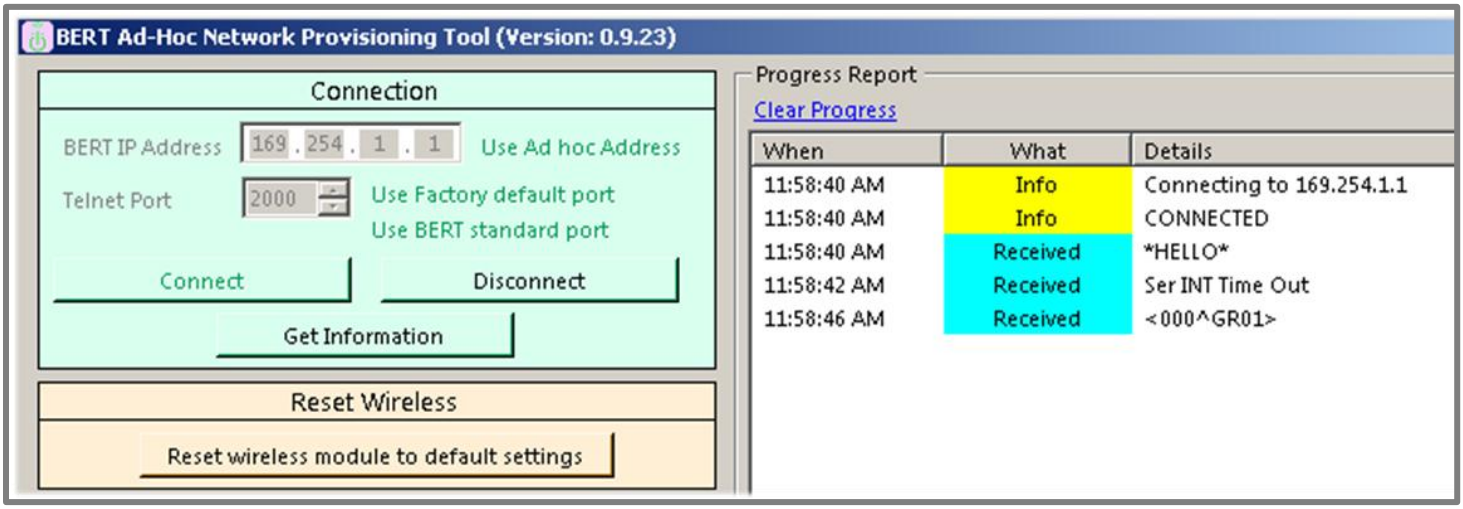
After establishing a connection with the BERT, proceed to the next step.

STEP 3: Communicate with BERT unit. The provisioning computer should now be ready to communicate with the BERT unit. Locate and run the GPT BERT Provisioner application.

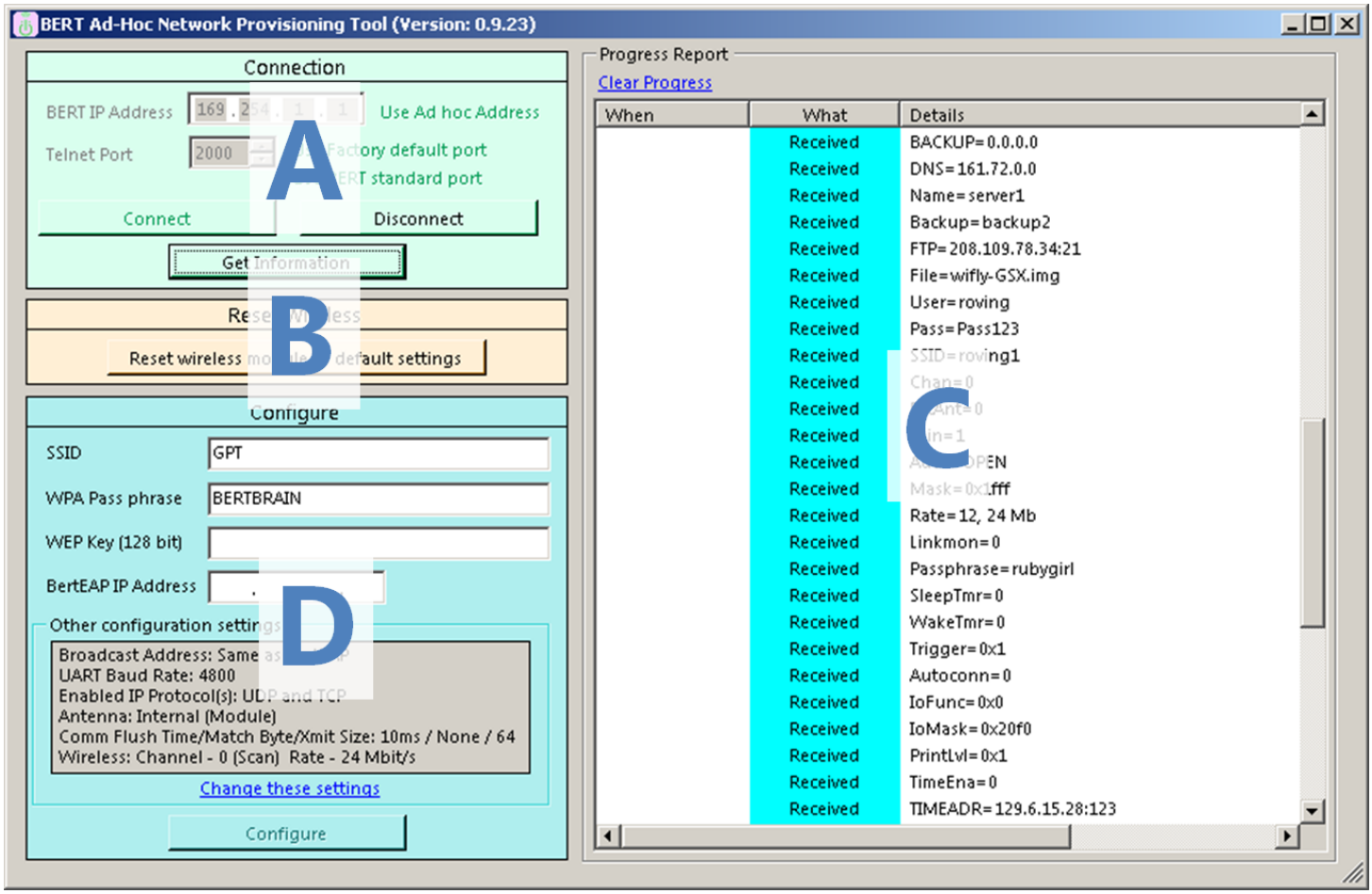
The provisioning tool will begin talking with the BERT unit by clicking 'Connect' in the connection box. *Leave the port settings and Ad hoc Address set to defaults.*



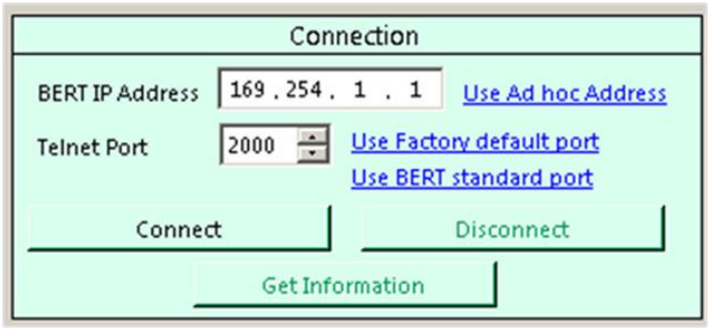
The provisioning computer should communicate with the BERT unit. The BERT unit will send a *HELLO* message in the Progress Report window of the provisioning tool.



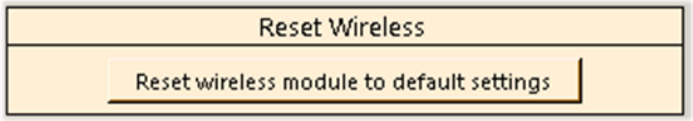
STEP 4: Navigate the provisioner. The provisioning tool consists of 4 sections: (A) Connection, (B) Reset Wireless, (C) Progress Report and (D) Configure.



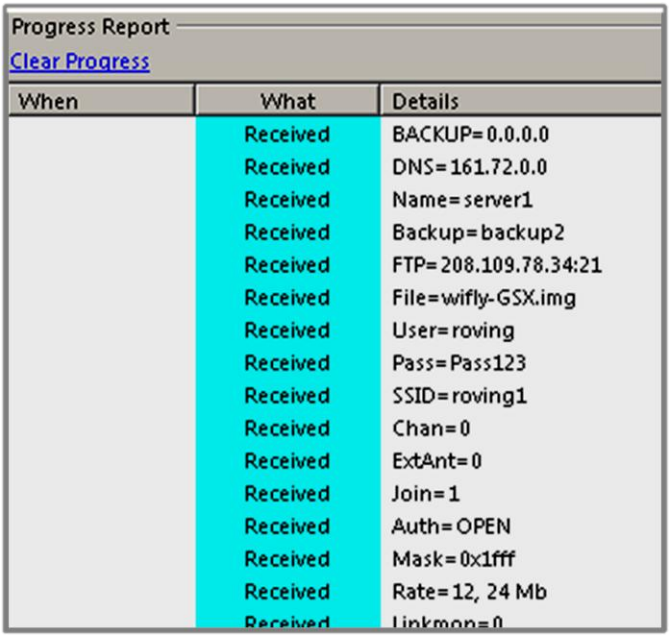
(A) Connection: This section is straightforward. These are the IP address and port settings upon which the provisioner uses to talk with the BERT unit. For most users, these settings can be left alone.



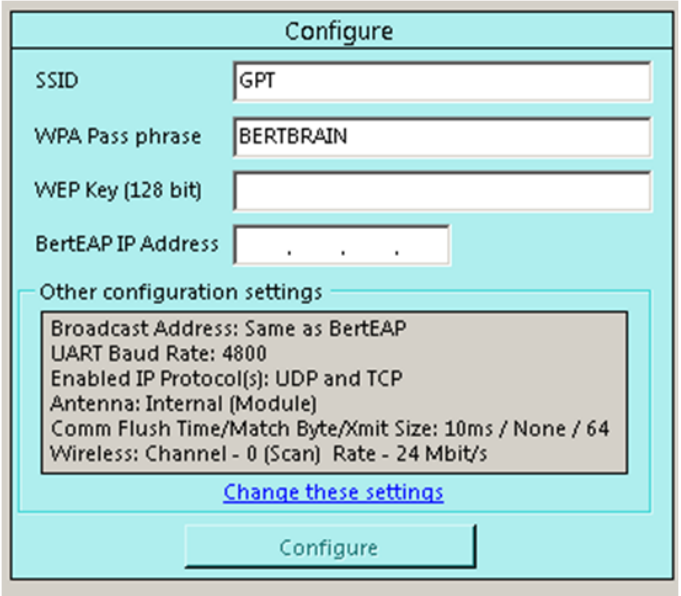
(B) Reset Wireless: Clicking the 'Reset wireless module to default settings' returns the BERT unit to its factory wireless network configuration.



(C) Progress Report: This area logs communications between the BERT and provisioning computer. This information is useful for system administrators but not applicable to most users. Click 'Clear Progress' to restart progress log.



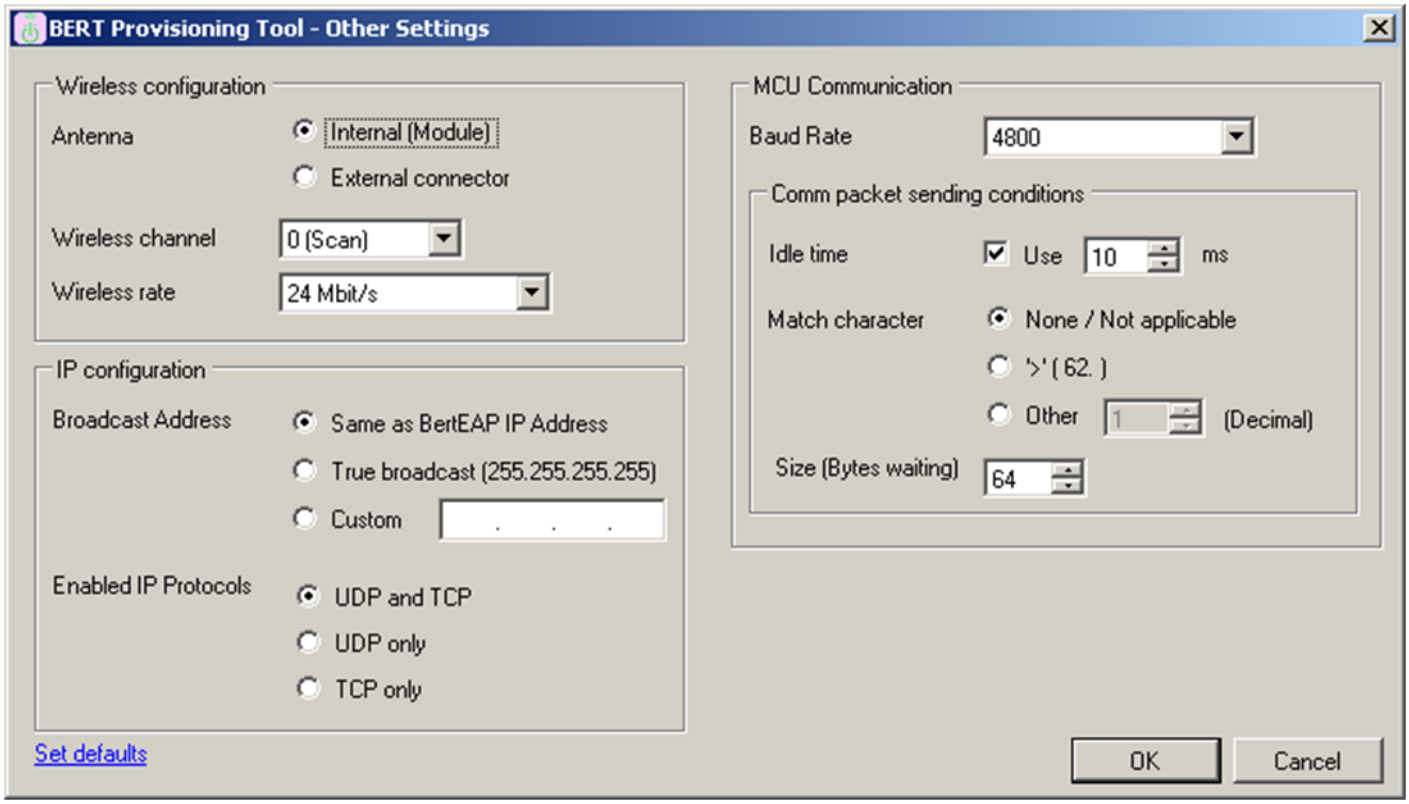
(D) Configure: Users will program the router SSID (Service Set Identification), enter WPA or WEP codes and the IP address of the computer with EAP installed.



Bert™ Says

"Note that the BERT security configuration only supports 128-bit WEP keys. Common routers use 64-bit WEP keys by default. The router will have to be updated to operate with a 128-bit WEP key or alternatively use WPA."

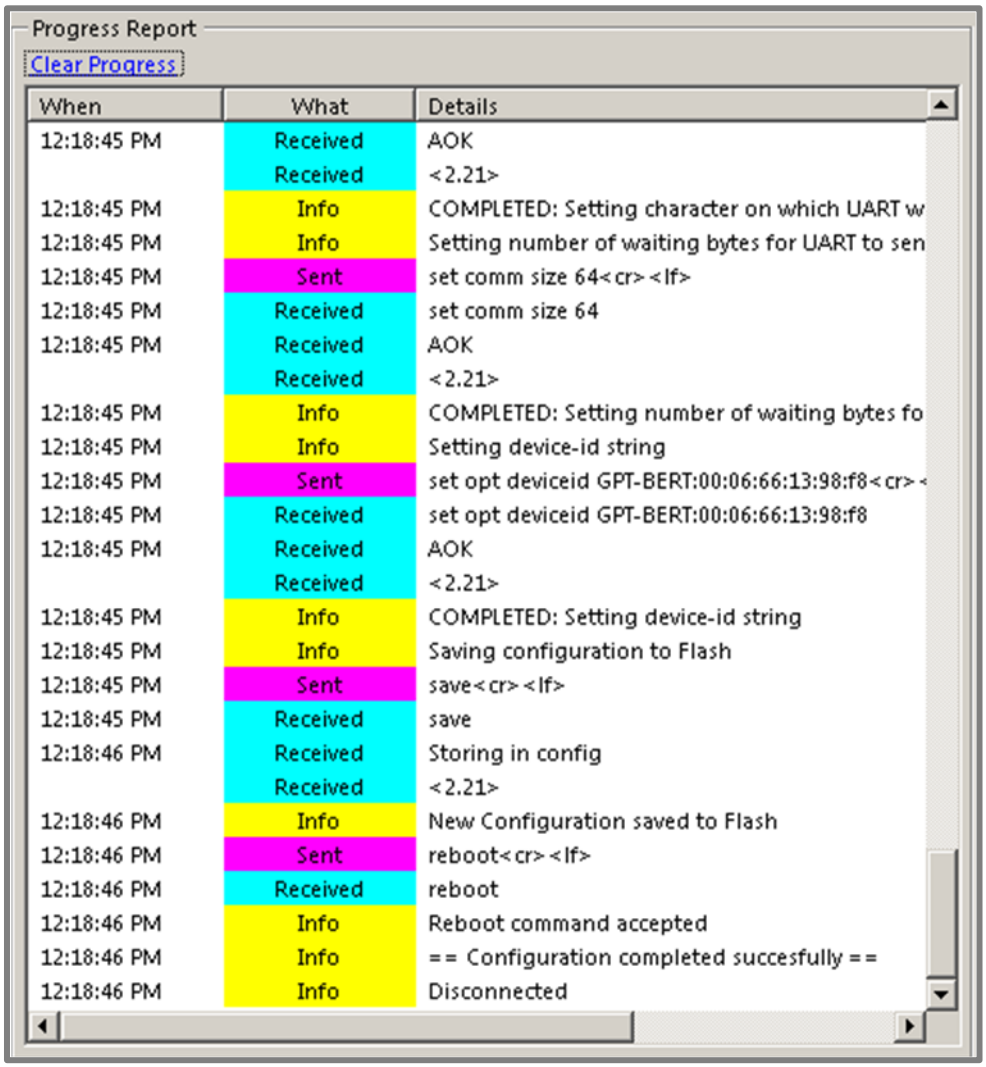
Additional configuration settings are available by clicking the '**Change these settings**' link in the configure box. Most users will not have to change any of these settings. These are advanced settings only.



STEP 5: Program a configuration in the BERT. Using information from your wireless router, type in the SSID and WPA pass phrase or WEP key. Leave both WEP and WPA fields blank if the router is insecure.

Finally, set the BertEAP IP Address. This is the IP address of the computer that will have the BERT EAP installed and will be used for managing the BERT units. This computer must have access to the wireless network assigned to the BERT units.

After the configuration settings are populated, click 'Configure' at the bottom of the box. If successful, the provisioner will write all of the network data to the BERT unit. Upon successfully writing the network data as shown below in the Progress Report, the BERT unit will reboot using the new configuration and is now ready for use!


Progress Report
Clear Progress
When
What
Details
12:18:45 PM Received AOK
Received <2.21>
12:18:45 PM Info COMPLETED: Setting character on which UART w
12:18:45 PM Info Setting number of waiting bytes for UART to sen
12:18:45 PM Sent set comm size 64<cr><lf>
12:18:45 PM Received set comm size 64
12:18:45 PM Received AOK
Received <2.21>
12:18:45 PM Info COMPLETED: Setting number of waiting bytes fo
12:18:45 PM Info Setting device-id string
12:18:45 PM Sent set opt deviceid GPT-BERT:00:06:66:13:98:f8<cr><
12:18:45 PM Received set opt deviceid GPT-BERT:00:06:66:13:98:f8
12:18:45 PM Received AOK
Received <2.21>
12:18:45 PM Info COMPLETED: Setting device-id string
12:18:45 PM Info Saving configuration to Flash
12:18:45 PM Sent save<cr><lf>
12:18:45 PM Received save
12:18:46 PM Received Storing in config
Received <2.21>
12:18:46 PM Info New Configuration saved to Flash
12:18:46 PM Sent reboot<cr><lf>
12:18:46 PM Received reboot
12:18:46 PM Info Reboot command accepted
12:18:46 PM Info == Configuration completed succesfully ==
12:18:46 PM Info Disconnected

3 BERT Enterprise Application Program (EAP)

3.1 Operational overview

The EAP permits multi-user access and management of all installed BERT units. Succinctly, the EAP allows users to schedule BERT ON/OFF times per unit or in groups, turn BERT units ON/OFF per unit or in groups and create and view power saving reports.

This section explores the EAP and provides examples of an EAP deployment.

3.2 Installation

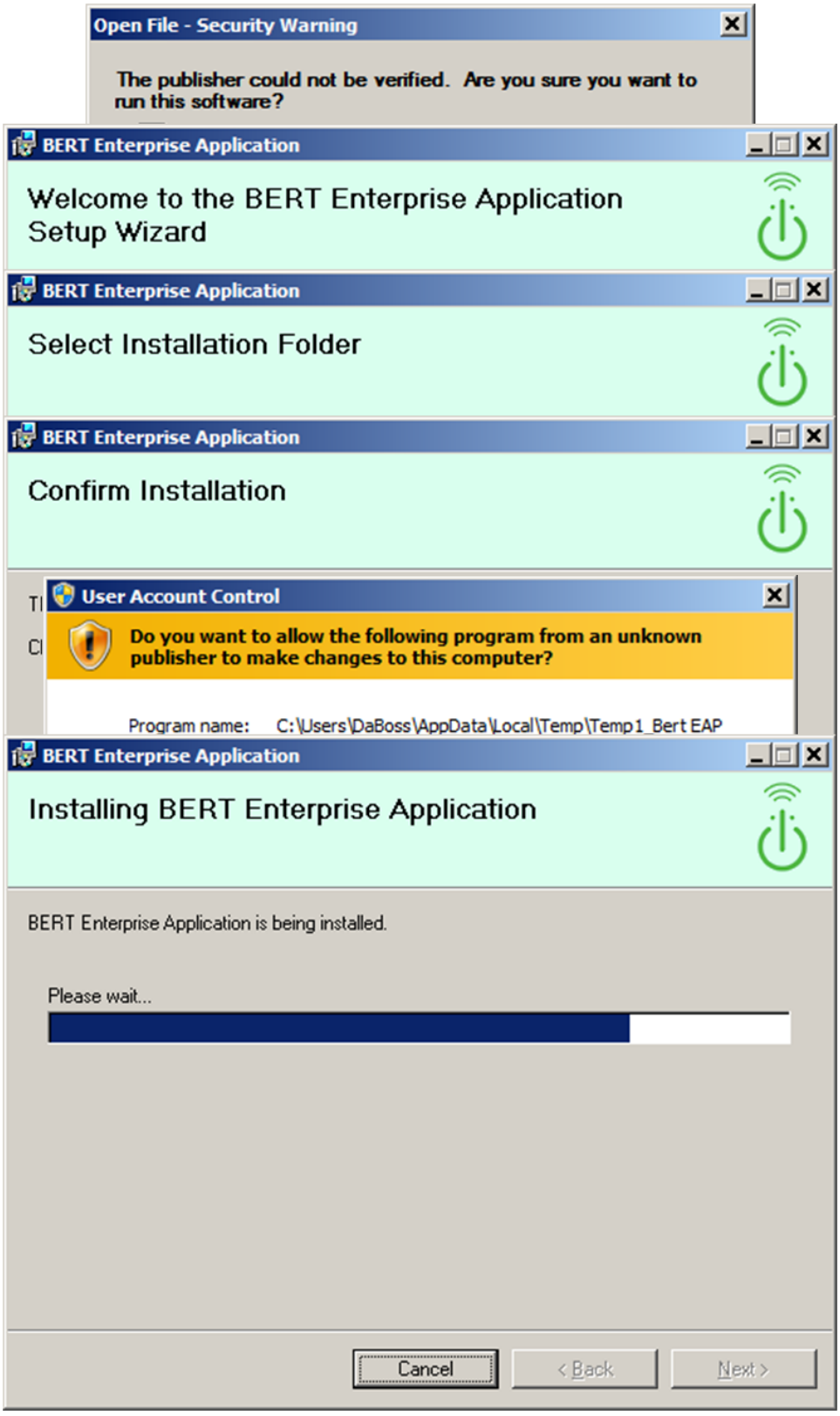
The EAP is designed for installation on computers running Microsoft Windows® 7 or Microsoft Windows XP. The following installation highlights a Microsoft Windows 7 installation.

Microsoft .NET Framework 4 or later is needed for the installation.

Locate and run the BertEAPSetup.msi installer package.

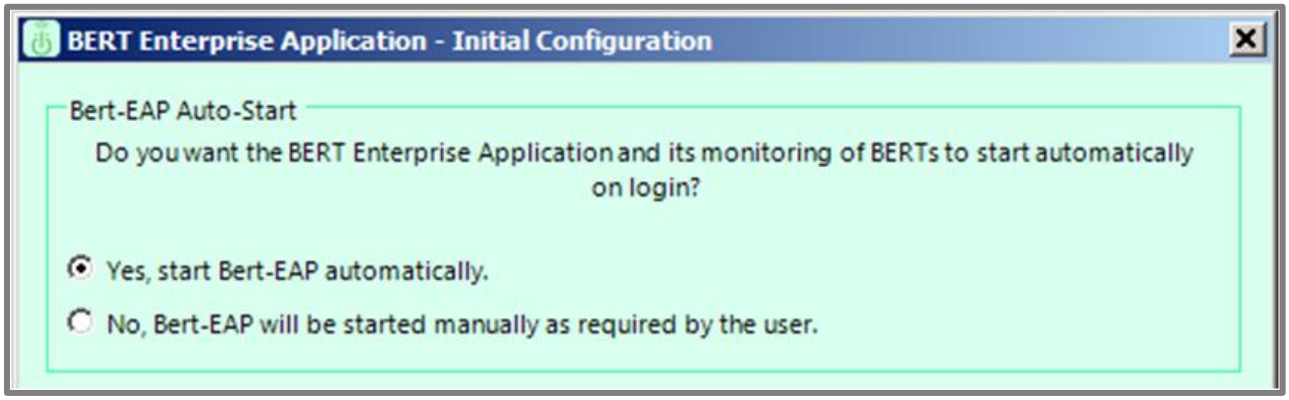
Follow the typical installation steps as illustrated below, and click YES or RUN to pass security and user account control messages.

Installation process overview:

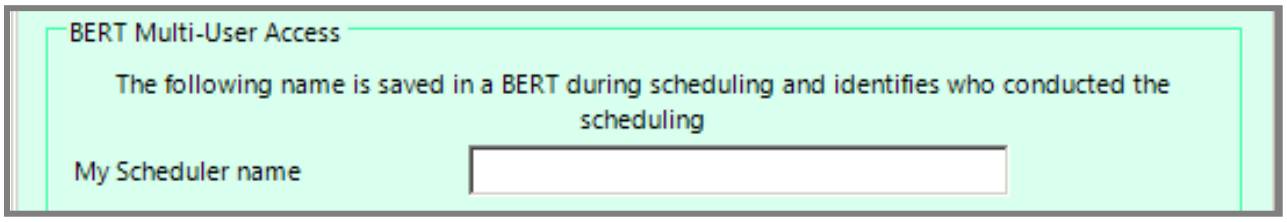

Open File - Security Warning
The publisher could not be verified. Are you sure you want to run this software?
BERT Enterprise Application
Welcome to the BERT Enterprise Application Setup Wizard
BERT Enterprise Application
Select Installation Folder
BERT Enterprise Application
Confirm Installation
User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: C:\Users\DaBoss\AppData\Local\Temp\Temp1_Bert EAP
BERT Enterprise Application
Installing BERT Enterprise Application
BERT Enterprise Application is being installed.
Please wait...
Cancel
< Back
Next >

During the installation, the installer will prompt the user for specific initial configuration information as shown next.

BERT-EAP Auto-Start: This provides the option to automatically start the EAP whenever the computer starts up or a user logs in. If the automatic start is not selected, the user will have to manually start the EAP each time to communicate with the BERT units.


BERT Enterprise Application - Initial Configuration
Bert-EAP Auto-Start
Do you want the BERT Enterprise Application and its monitoring of BERTs to start automatically on login?
Yes, start Bert-EAP automatically.
No, Bert-EAP will be started manually as required by the user.

BERT Multi-User Access: The EAP installer should first enter a 'My Scheduler Name' that is unique to the user. This scheduler name will be used to identify which user set and programmed schedules onto the BERT units.

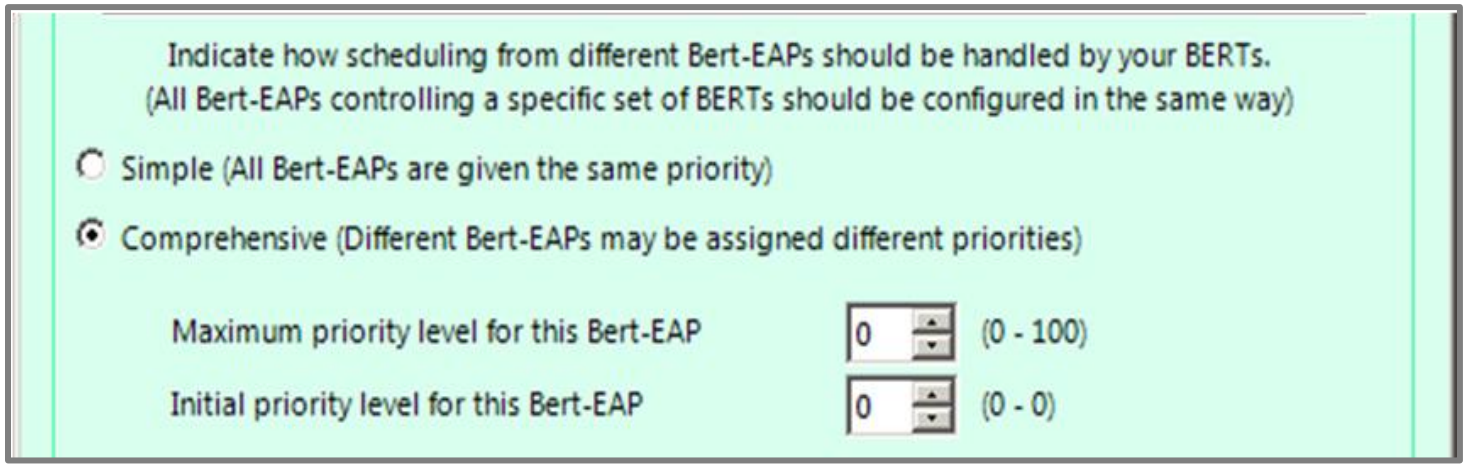

BERT Multi-User Access
The following name is saved in a BERT during scheduling and identifies who conducted the scheduling
My Scheduler name

In order to manage multiple schedules inputs, the EAP uses priority levels to determine which schedule to execute. BERT units maintain only one schedule at the highest assigned priority. Simply stated, higher priority level schedules override any lower priority level schedules.

If multi-user priority access is not planned and priorities are deemed unneccessary, select:

Simple (All Bert-EAPs are given the same priority)

and continue the installation.


Indicate how scheduling from different Bert-EAPs should be handled by your BERTs.
(All Bert-EAPs controlling a specific set of BERTs should be configured in the same way)
Simple (All Bert-EAPs are given the same priority)
Comprehensive (Different Bert-EAPs may be assigned different priorities)
Maximum priority level for this Bert-EAP
0
(0 - 100)
Initial priority level for this Bert-EAP
0
(0 - 0)

If priority based multi-user access is desired, select:

Comprehensive (Different Bert-EAPs may be assigned different priorities)

and assign priority levels for this EAP installation. Note, these priorities only effect the current installation. Each EAP installation can have unique priority levels assigned.

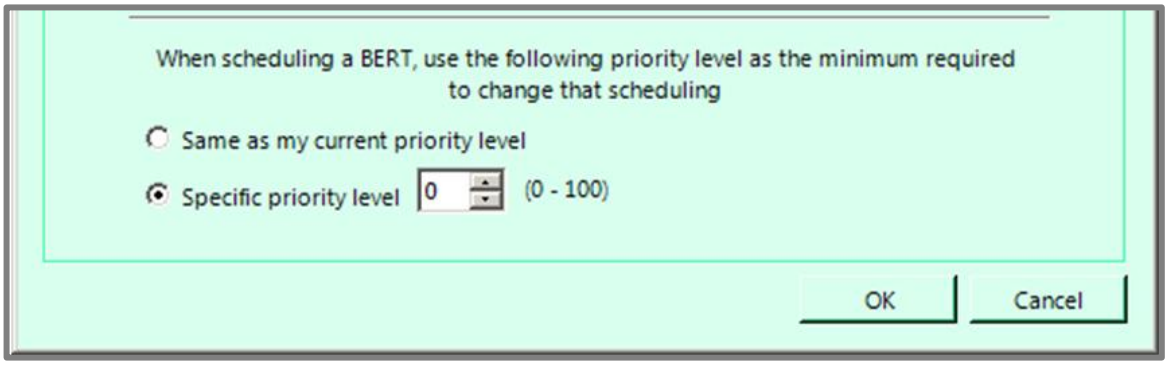
As an example, say there are 10 employees at a local paper manufacturer sales office: a facilities manager, an office manager, and eight sales people and support staff. Each of these employees may have different needs from a BERT unit. From the facilities manager down to the employees, each employee has their own concerns and needs from BERT devices. The table below discusses the employees and what their key office concerns are.

User	Priority	Concern
Facilities MGR	High	• Shut off vital systems during after hours emergencies • Minimize wear on compressors, mechanical systems
Office MGR	Middle	• Save power by turning off unnecessary lights, devices • Lowering operating expenses
Employee	Low	• Turn off desk lamp • Turn off printer and computer

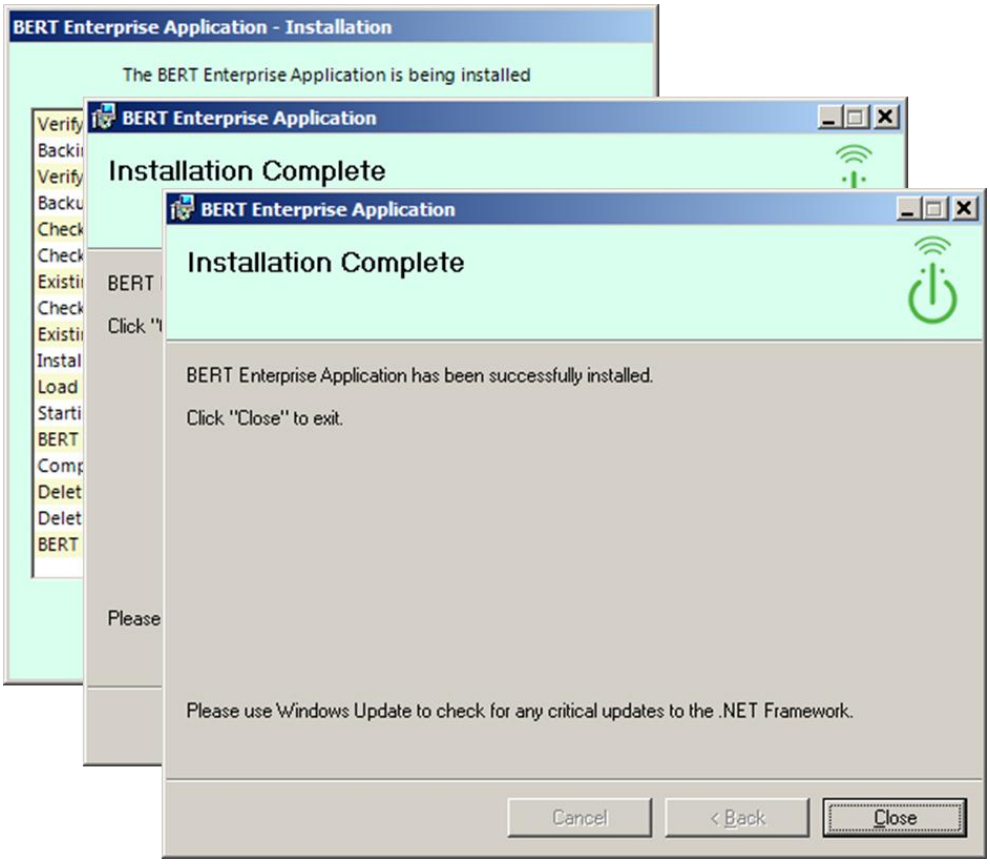
Also, the facilities or office managers don't need to set the priority of individual desk lamps. Therefore, they can set the priority of their high concerns and let the lower concern devices be managed by the employees. Using the example above, administrators or managers can properly set the EAP priorities up properly. The table below suggests priority levels for each of the employees.

User	Max Priority Level	Initial Priority Level	Reason
Facilities MGR	100	50	Schedules/controls on critical equipment cannot be overridden. They are only concerned with equipment operation and will not assign BERT schedules to anything but facility equipment except in the case of emergency.
Office MGR	70	30	Wants to manage office at high level. Doesn't want employees to override power saving schedule. Unconcerned with individual desk power usage. Limited access to override some of facility manger's BERT schedules and controls in case of emergency.
Employee	30	10	Local control of desk area and limited BERTs. No access to energy saving plan BERTs or facilities BERTs. Can set max priority of 30 to own devices to prevent other non-management employees from overwriting schedule.

Once the maximum and initial priority levels are assigned and entered, the minimum priority level should be assigned.

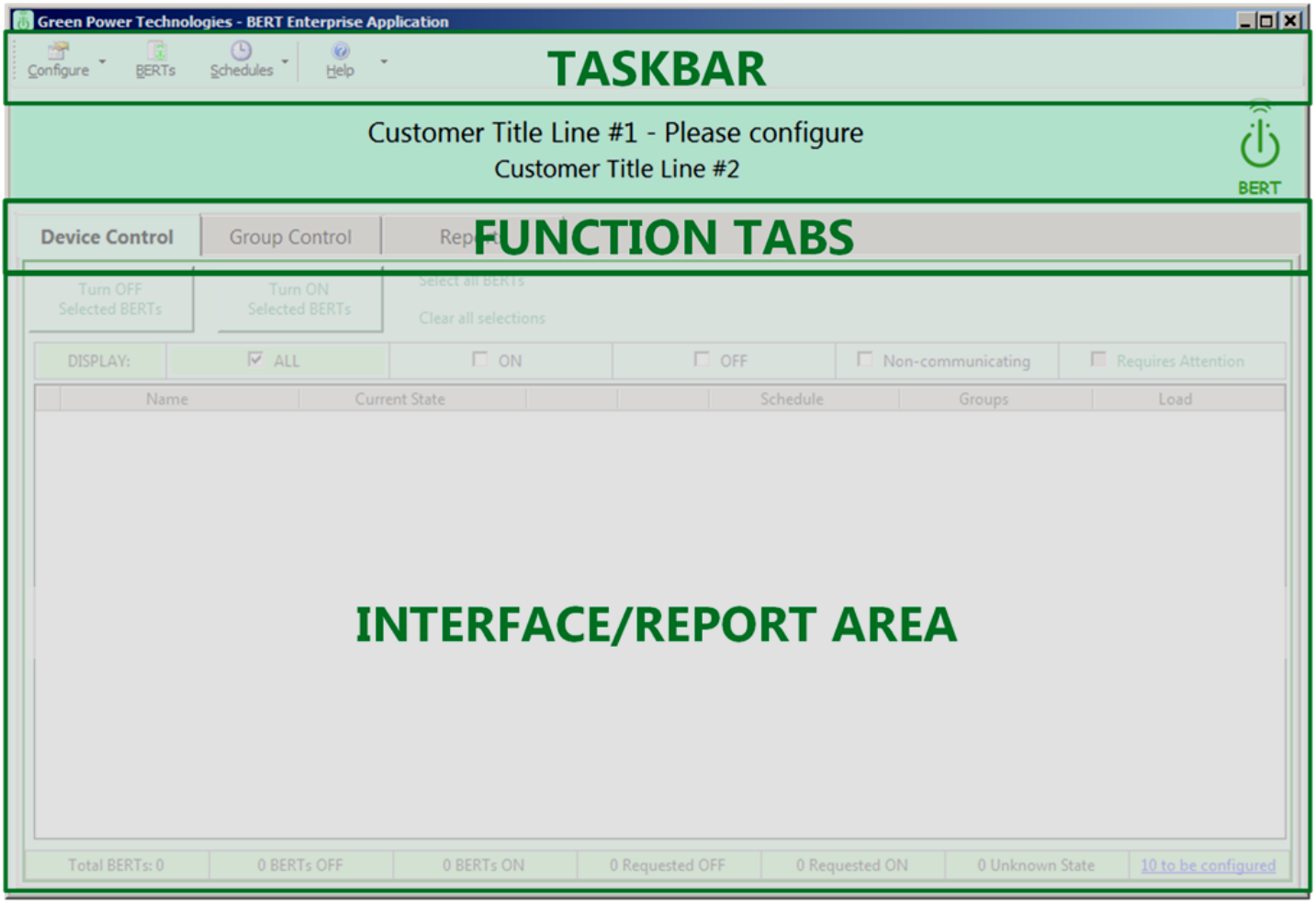

When scheduling a BERT, use the following priority level as the minimum required to change that scheduling
Same as my current priority level
Specific priority level
0
(0 - 100)
OK
Cancel

Using the example above, the office manager may not be overly concerned about the hallway printer. They can set a priority level lower than their current initial priority level (30) to allow the employees to manage schedules for that BERT unit. Once the initial configuration is complete, the EAP will finish installing.

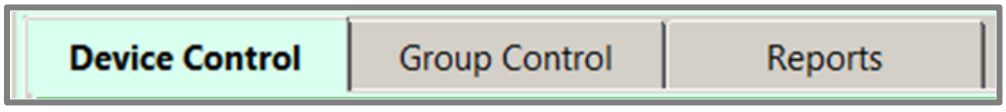

BERT Enterprise Application - Installation
The BERT Enterprise Application is being installed
BERT Enterprise Application
Installation Complete
BERT Enterprise Application
Installation Complete
BERT Enterprise Application has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel
< Back
Close

3.3 BERT dashboard

The EAP dashboard is segmented into 3 parts: the taskbar, function tabs and the interface/reporting area.

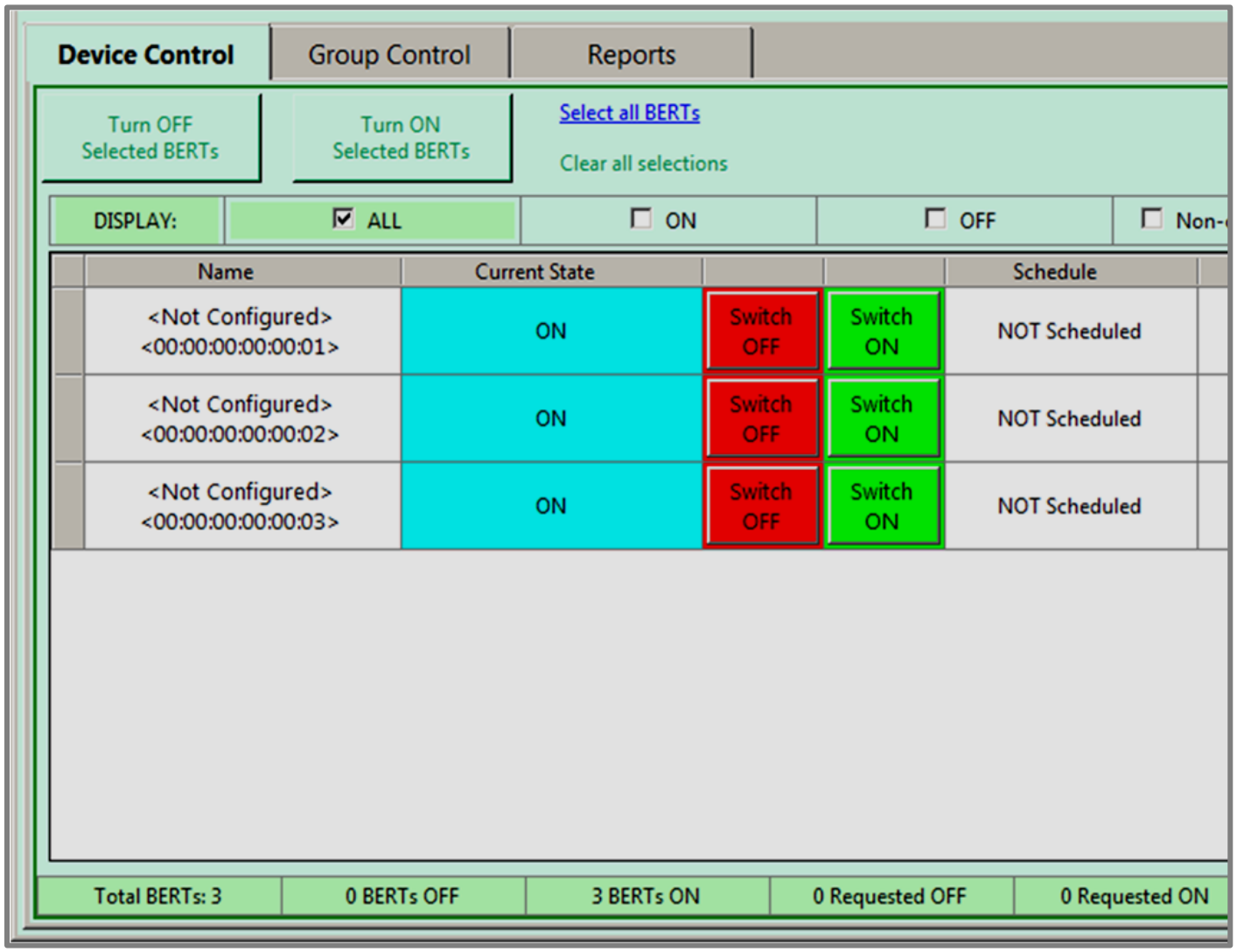


3.3.1 Function Tab - Device Control



If BERT unit(s) have been properly provisioned and the EAP computer is on the same network as the BERT units, BERTs should

appear in the interface/report area. In this example, 3 BERTs have been identified by the EAP.



Users can confirm BERT function by switching the unit off and then on using the Switch OFF and Switch ON buttons. Note that the 'Current State' of the device changes as the units are switch OFF and ON.

Users can display several series of BERTs: ALL, ON (units), OFF (units), Non-communicating (units) and Requires Attention (if applicable) by clicking the check boxes in the DISPLAY row.

Additionally, BERT counts are located at the bottom of the Interface/Report area. Users can see how many total BERTs their EAP detects, and from that, how many are ON, OFF, Requested ON, Requested OFF and Unknown State.

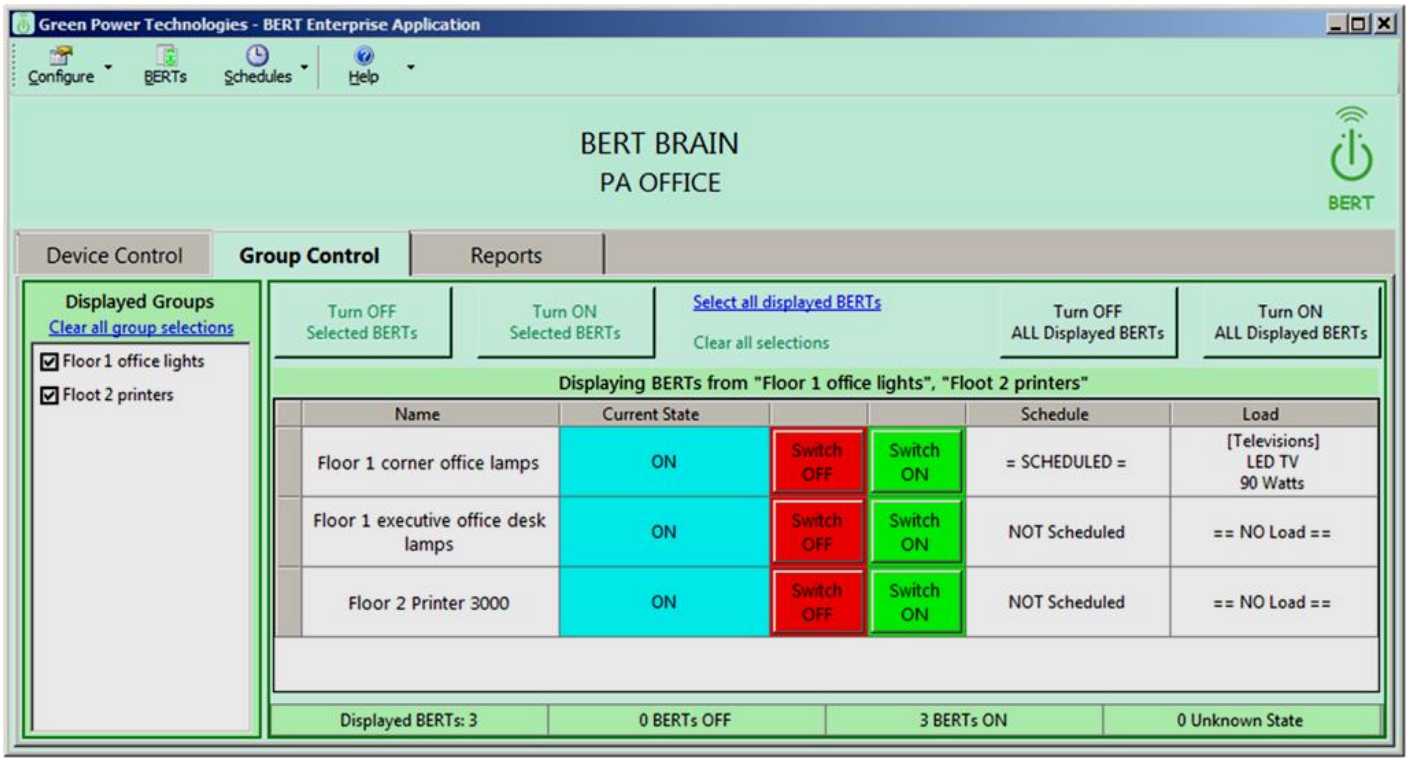
The hyperlink 'xx to be configured' at the lower right hand corner of the BERT count provides a shortcut to the BERT icon in the taskbar. This number corresponds to the amount of BERTs that are detected but have not been configured. More information on BERT configuration is located in Section 3.3.5.

Users can Select all BERTs, Clear all selections, and Turn ON or OFF one or all of the BERTs together.

By double clicking on a BERT, a configuration window opens. This is the same window available in the BERT configuration menu in the taskbar. BERT configuration is covered in Section 3.3.5.

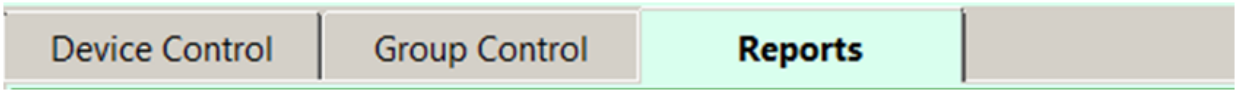
3.3.2 Function Tab - Group Control

Group controls allow users to manage the control of BERTs together, eliminating the hassle of individually managing units. By default, no groups are setup and a 'no groups' message appears. Click the link to setup a group or find Group configuration within the BERT taskbar command (in Section 3.3.5.)

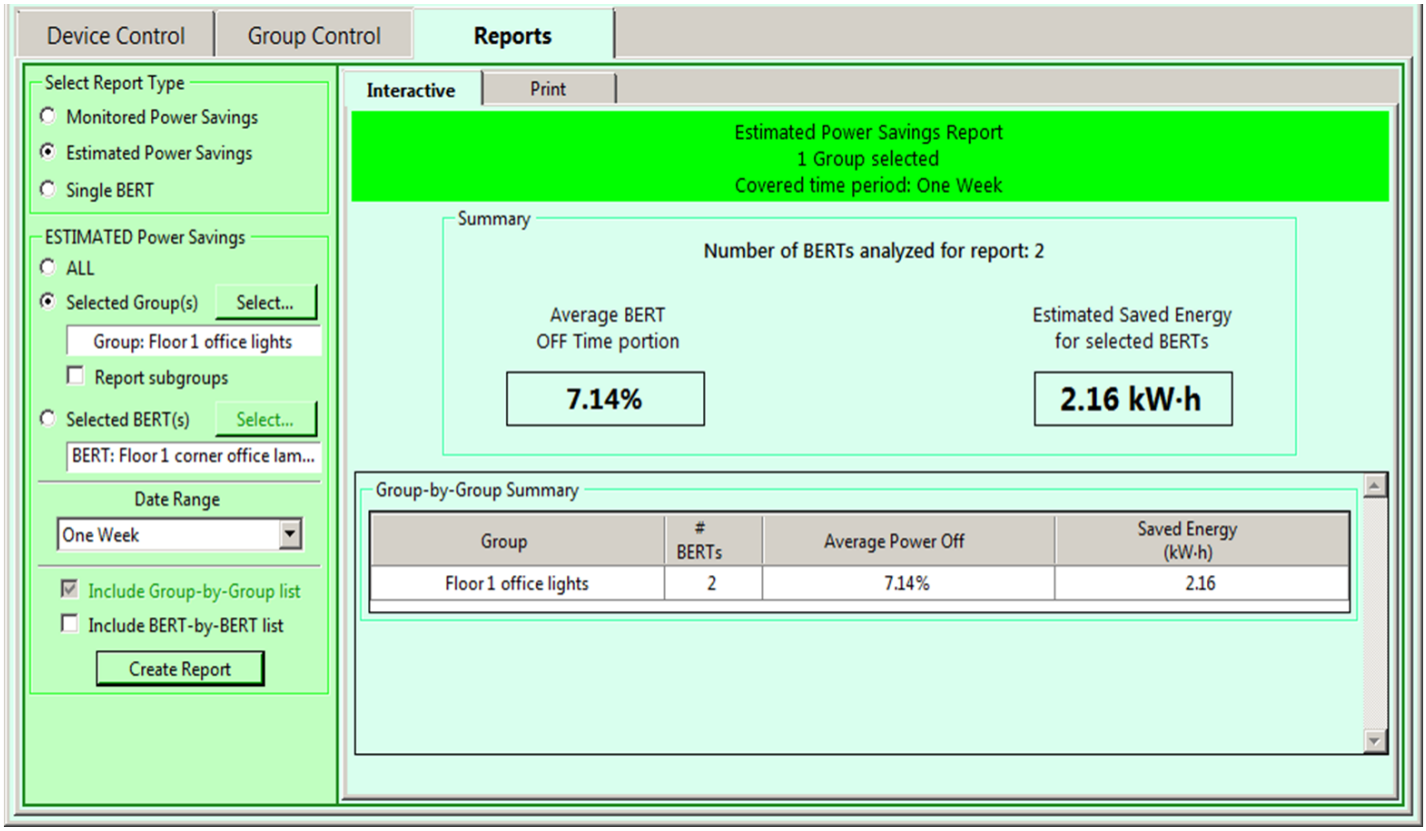


Once a group is formed, select a group or groups from the LH groups column and then Turn ON or Turn OFF the BERTs together as a group.

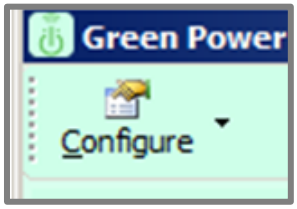
3.3.3 Function Tab - Reports



The EAP provides three different reports: Single BERT, Monitored Power Savings and Estimated Power Savings. Begin by clicking one of the three report types. Next, choose either ALL BERTs, a Selected Group of BERTs (including or excluding subgroups) or choose specific BERTs. If ALL BERTs are selected, choose to report in a Group-by-Group or BERT-by-BERT list. If Selected Group of BERTs are selected, choose whether to report in BERT-by-BERT list. Then, click a Date Range spanning a week to a year or use a custom Date-Time range and finally click 'Create Report'. A savings report can be viewed or printed with the Print tab.



3.3.4 Taskbar - Configure command



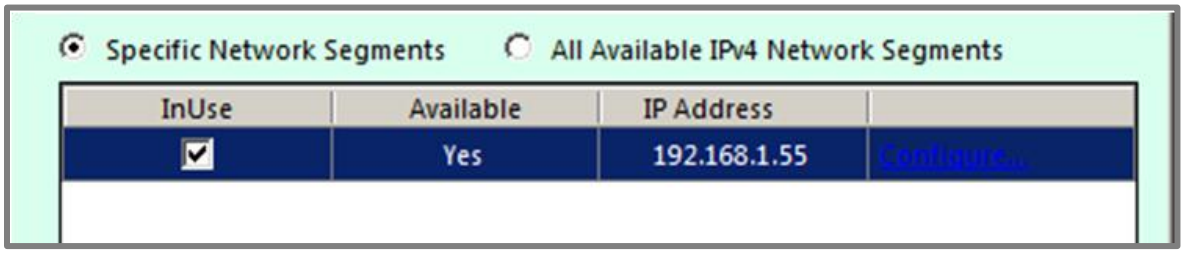
Settings: Users can modify: General, Network, Customer and Scheduling settings.

General:

Changes EAP startup and exit behaviors.

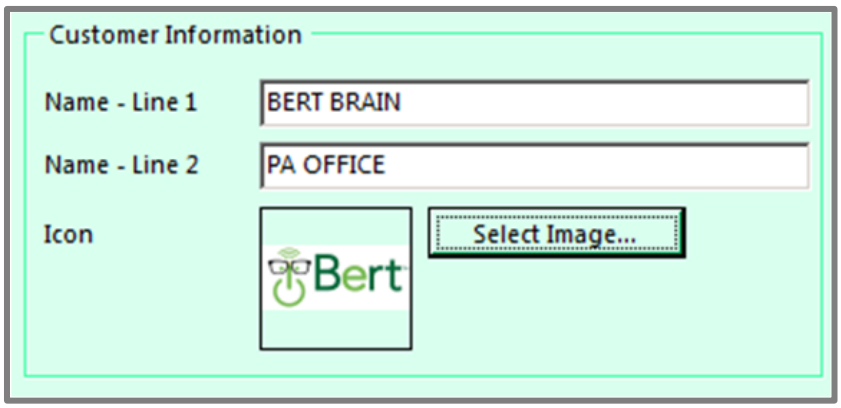
Preferences
Show fully displayed on startup
Hide splash screen on startup
Exit BERT Enterprise Application when main window is closed (Not recommended)
Automatically starts on user login
This setting is configured during installation. You may only change this setting by re-installing or repairing this program.

Network Setting: Lists on-board computer network devices. User should check the network device(s) that they intend to use to communicate with BERT plugs across a wireless network. Users can run plugs on two different wireless networks if multiple adapters are present and selected.

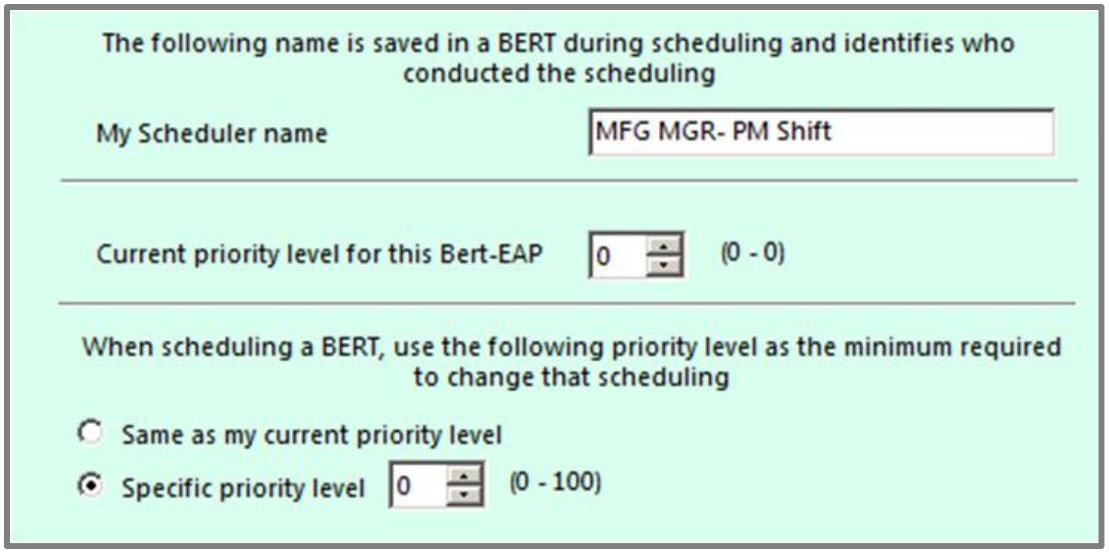


Any changes to Defaults or through the configure link are only recommended for advance users.

Customer Settings: Allows customers to customize title information on the dashboard. As an example, the first line may be designated by company name and the second line by division or floor. Additionally, users can add an identifying icon if desired.



Scheduling Settings: This allows users to change priority scheduling settings made during installation except that users cannot change the maximum priority level assigned during installation. Scheduler name, current and minimum priority levels assignments can be changed. Refer to Installation section 3.2 for more information on these settings.

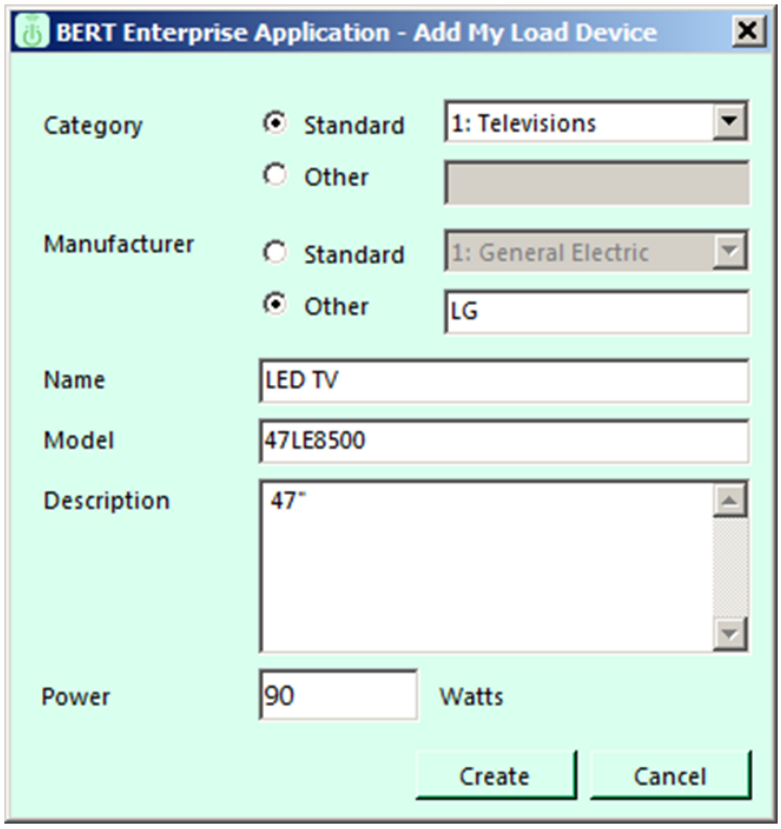

The following name is saved in a BERT during scheduling and identifies who conducted the scheduling
My Scheduler name
MFG MGR- PM Shift
Current priority level for this Bert-EAP
0
(0 - 0)
When scheduling a BERT, use the following priority level as the minimum required to change that scheduling
Same as my current priority level
Specific priority level
0
(0 - 100)

My Load Devices: A Load Device is defined as any device that plugs into the BERT. This can vary from an office lamp to a water cooler to fans to TVs and more. The EAP does not maintain a comprehensive load device database. Users can enter load information for specific load devices here. This load device information is used to generate reports.

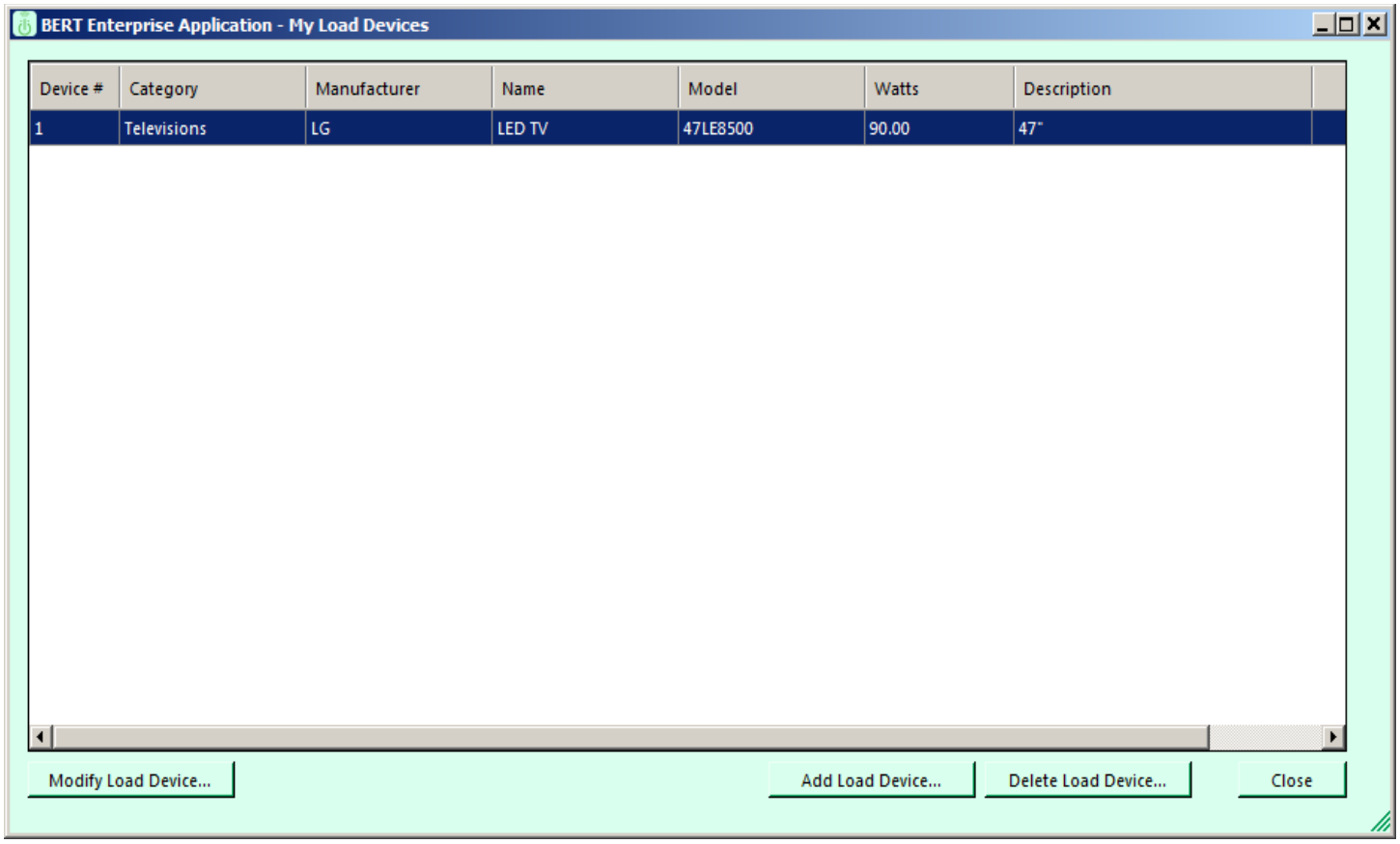
Click 'Add load device' to create a device. Next, add load device information. Select a standard category or make your own. Next, select a manufacturer or add your own. Follow up with device name, model and description. Power information is often available on the devices label, manual or online. Below is an example of an LED TV load device being added. Click 'Create' to finish.

Bert Says

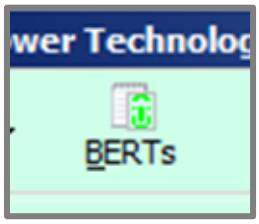
"The more information that you put into your load device table, the more accurate and informative your power reports will be"



After adding your load device(s), the My Load Devices table will show the device(s). The table below shows the LED TV added to the left. Users can add more load devices or modify or delete load devices.

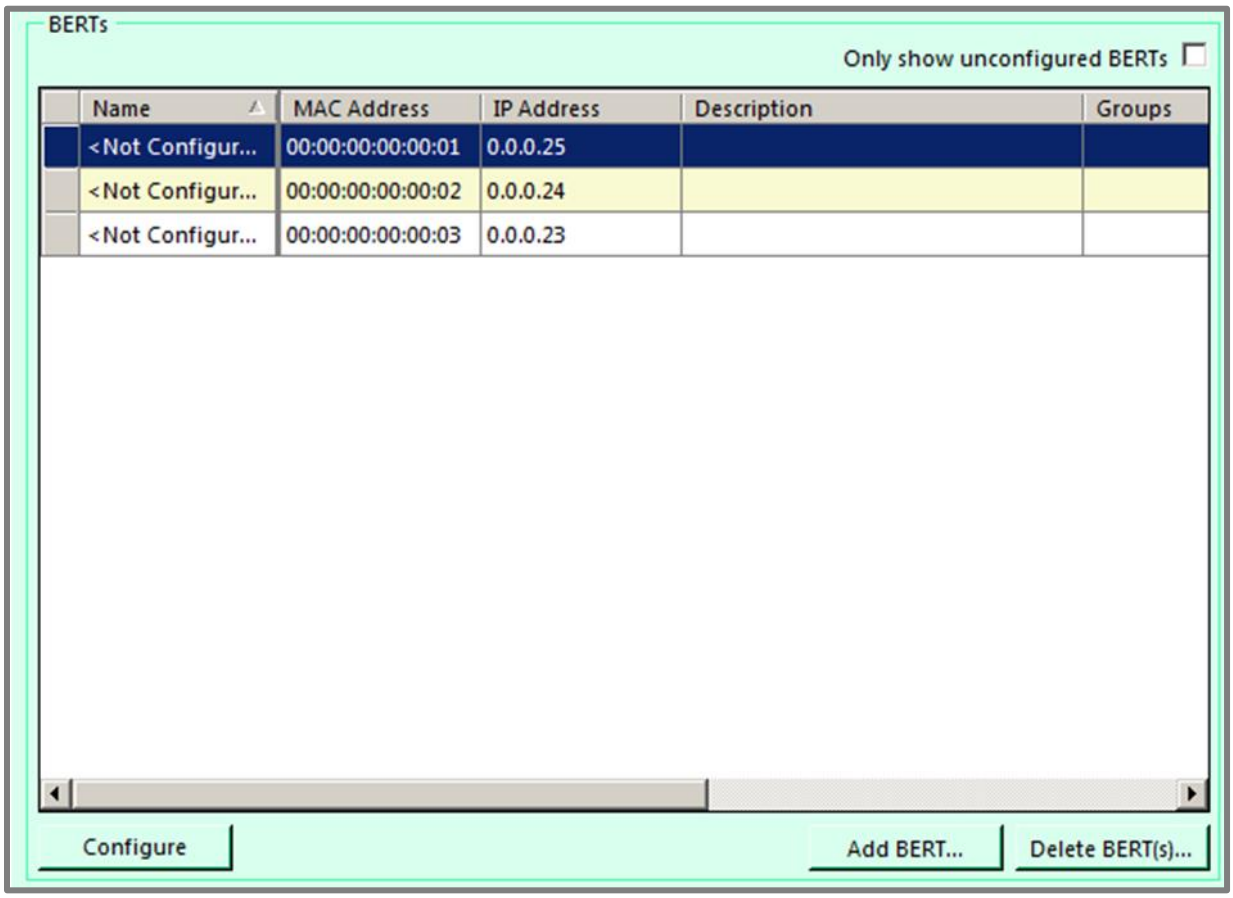


3.3.5 Taskbar - BERTs command

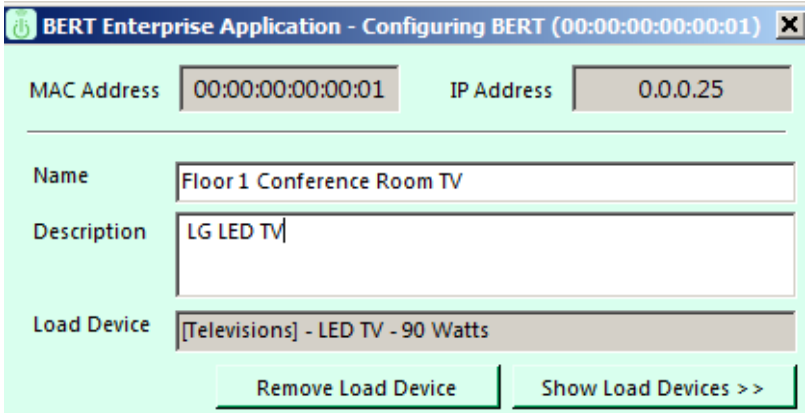


Users can add, configure and delete BERTs and BERT groups from this task. This is the main task selection used to manage BERTs. This task is divided into two boxes: **BERTs** and **BERT Groups**.

BERTs: After confirming that the EAP sees the provisioned BERT units, the BERTs can be configured. Select a BERT and click the 'Configure' button on the bottom left hand corner of the BERTs box.



The upper section of the BERT configuration:



MAC Address/IP Info

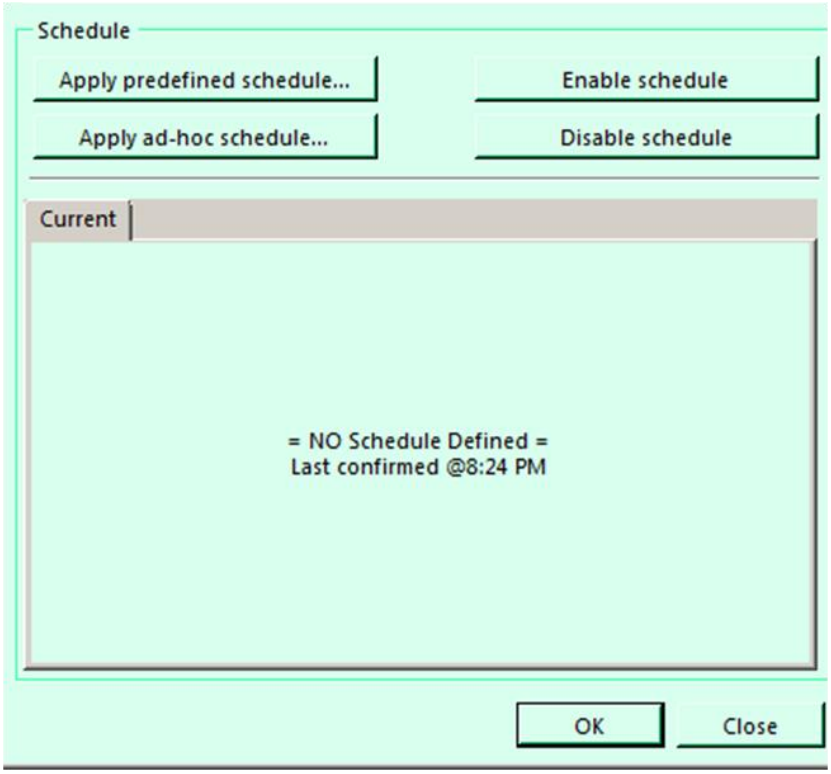
Enter BERT ID Name

Enter BERT ID Description

Enter Load Device info

The Load Device can either be a preloaded device or a device created in Section 3.3.4. Click Ok when the configuration is done.

The lower section of the BERT configuration:



Apply predefined schedule

Apply ad-hoc schedule

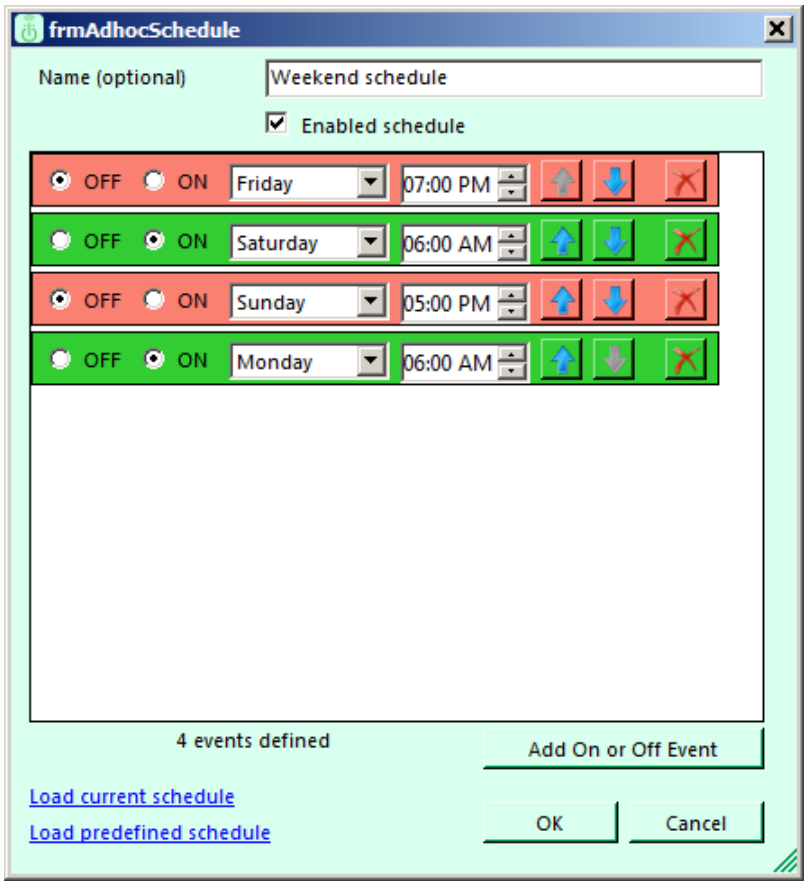
Enable schedule

Disable schedule

Apply predefined schedule: Select between schedules made in Section 3.3.6. After selecting a schedule, click Yes to confirm schedule. The schedule will then download into the BERT.

Apply ad-hoc schedule: Users can create and name schedules on the spot. Schedules can be single ON/OFF events or any desired combination of ON/OFF events during any day of the week.

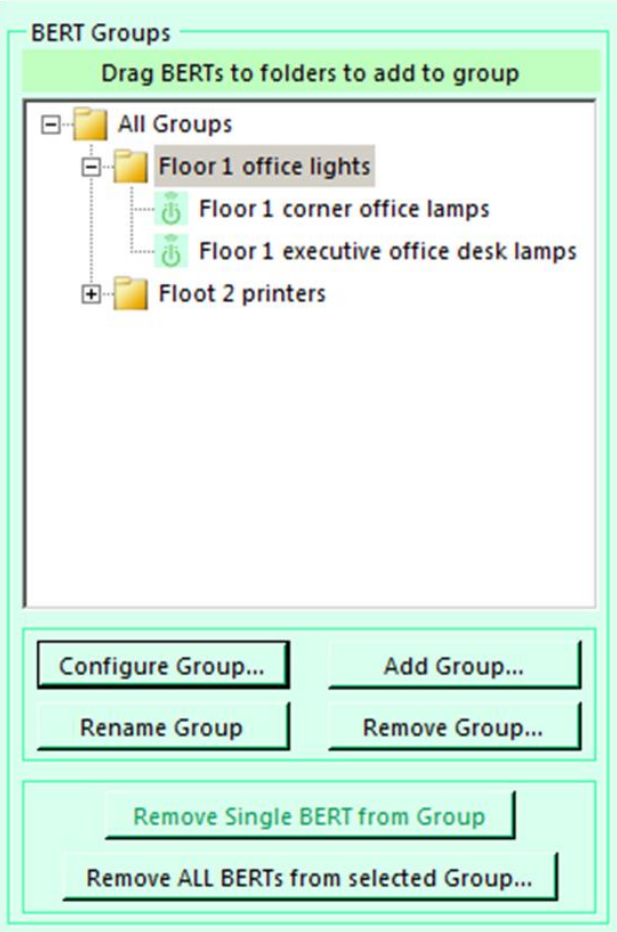
Click Add On of Off Event to add an event, and then select ON or OFF, the day(s) of the week and the time. Click the arrows to move events up/down the list and click the X to remove. Click 'Ok' and then 'Yes' to confirm schedule. The ad-hoc schedule will then download into the BERT.



Enable schedule: Enables the last schedule loaded into the BERT.

Disable schedule: Disables the schedule currently loaded into the BERT.

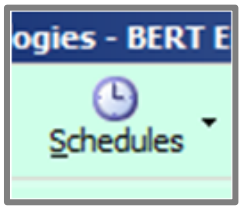
BERT Groups: Grouping BERTs is an easy way to manage and schedule units. For example, floor 1 office lights may be in a group and floor 2 printers are in another group. Rather than creating and managing schedules for 20 individual BERTs, users can create groups to manage them.



Start by adding and naming a group. In this example a new group 'Floor 1 office lights' was added. After adding a group, drag and drop BERTs from the BERT row to the desired group folder.

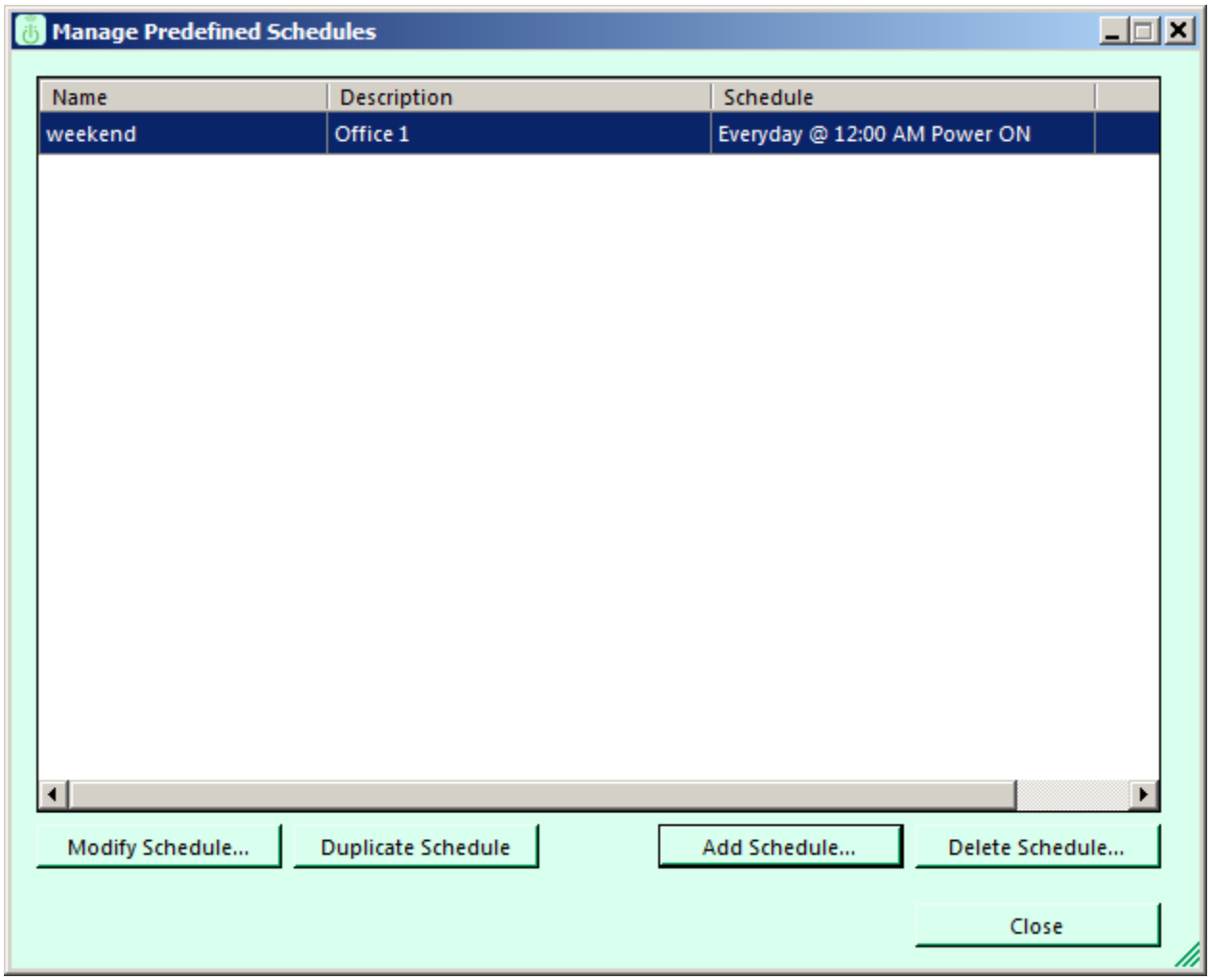
Use the additional functions to manage groups (Configure, rename or remove groups and/or Remove Single BERTs or ALL BERTs from the selected group. Groups will now display in the Group Control function tab.

3.3.6 Taskbar - Schedules command

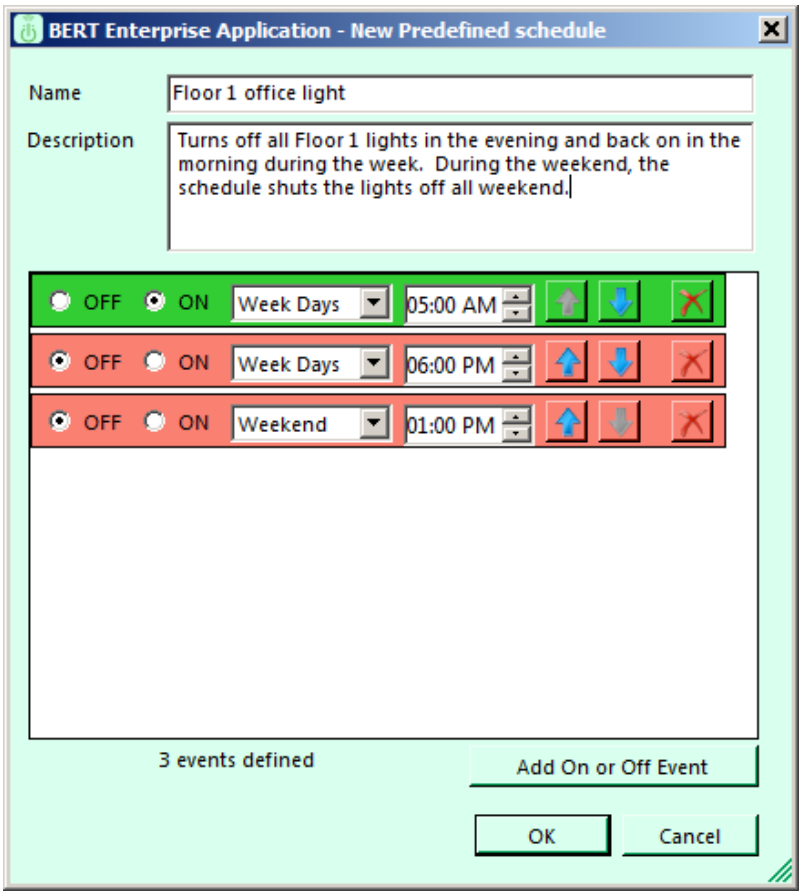


Users can add, modify, duplicate and delete schedules and push schedules out to BERTs or groups of BERTs.

Manage Predefined Schedules: This provides an easy way to manage all existing schedules saved on the EAP. The main screen lists existing Predefined Schedules.



Click 'Add Schedule' to create a new schedule.

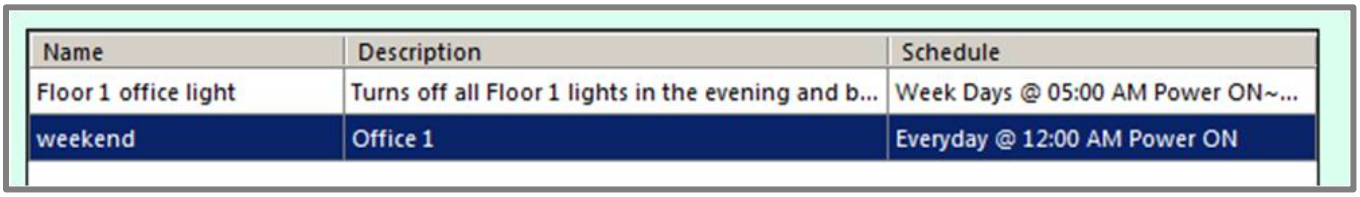


From here, users can add events, change events to be ON or OFF events and set the days and time.

Providing a descriptive name and description can help distinguish schedules as more and more schedules are defines.

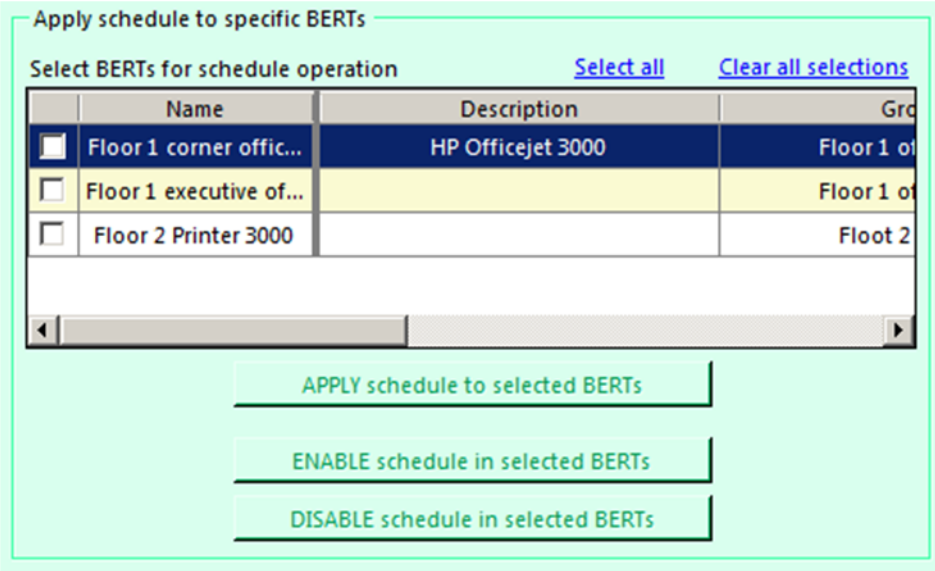
Once 'OK' is clicked, the schedule is saved.

The schedule will now appear in the Predefined Schedule list:



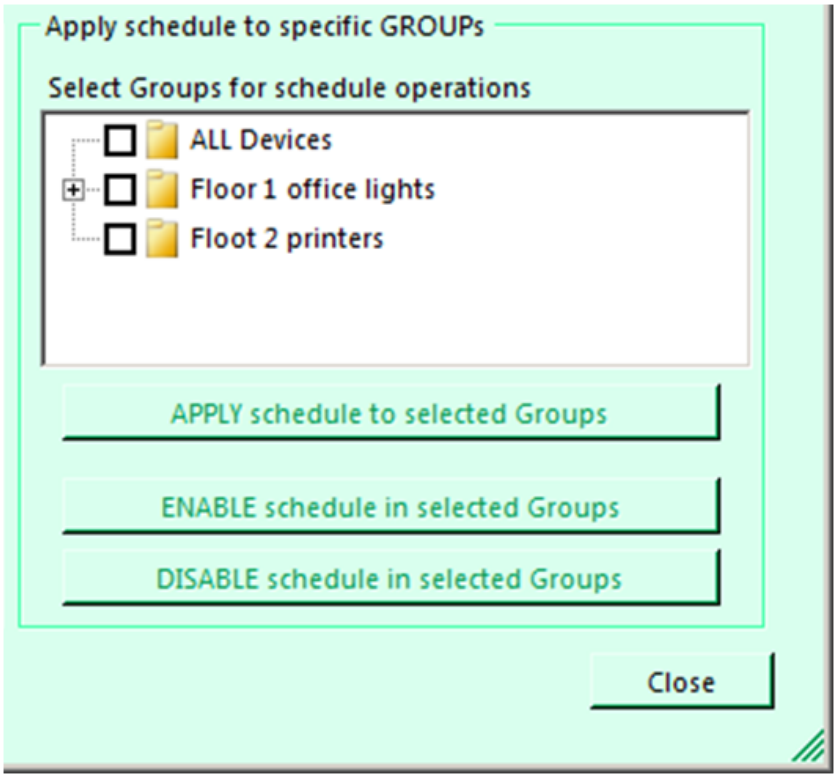
This new schedule can now be duplicated, deleted or modified in the main Schedule menu.

Apply Schedule to BERT(s): This screen provides an easy way to apply, enable and disable schedules for individual BERTs or groups of BERTs.



To apply a schedule to specific BERTs:

Select the BERTs and then click APPLY, ENABLE OR DISABLE schedule to selected BERTs to add, drop or modify selected BERTs schedules.



To apply a schedule to groups of BERTs:

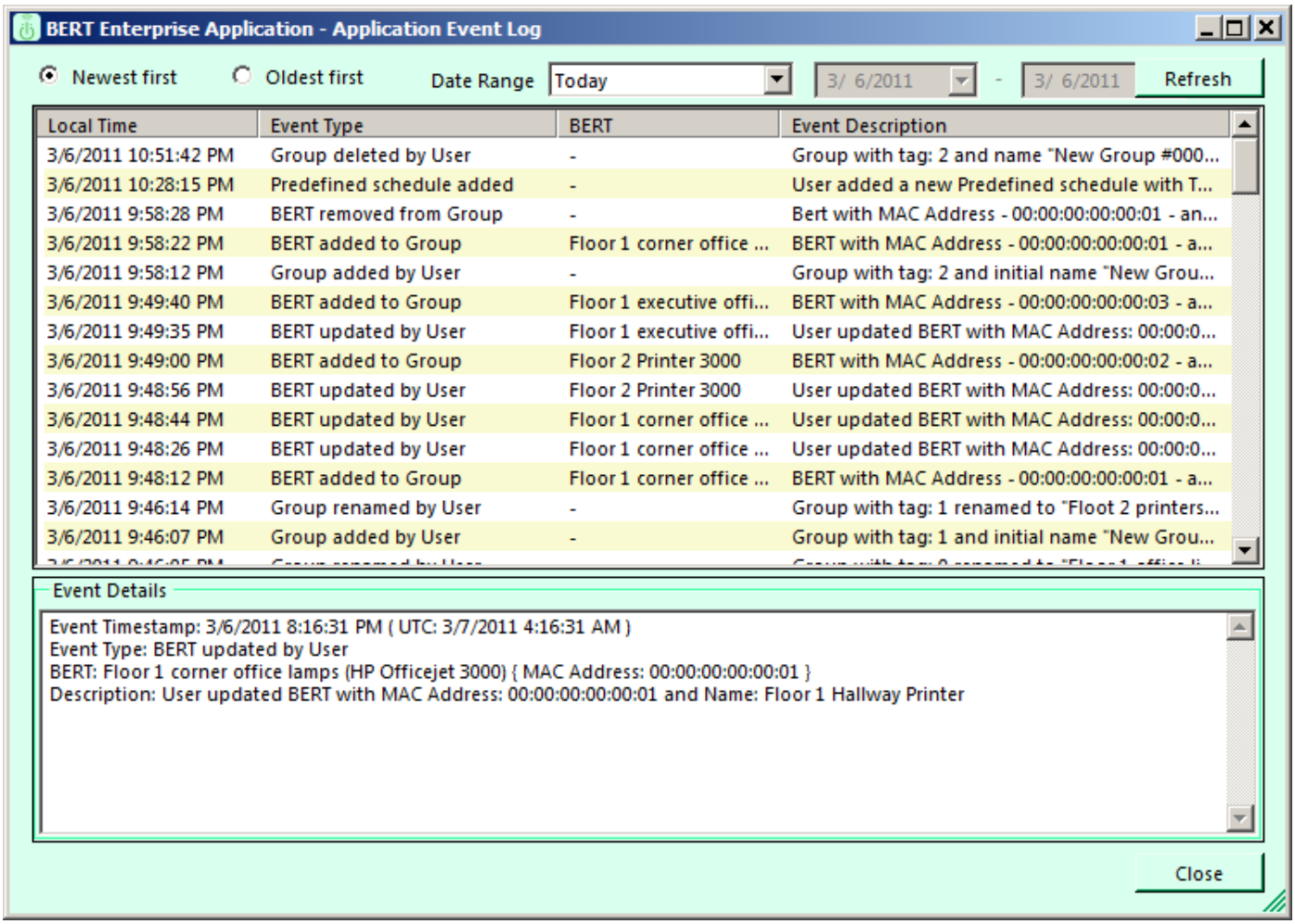
Select the BERT GROUP and then click APPLY, ENABLE OR DISABLE schedule to selected groups to add, drop or modify BERT group schedules.

3.3.7 Taskbar - Help command (and troubleshooting)

The help command provides help and troubleshooting for the user. Help command tasks include: **BERT Enterprise Application Help**, **Enterprise Application Event Log, Service Utilities** and **About**.

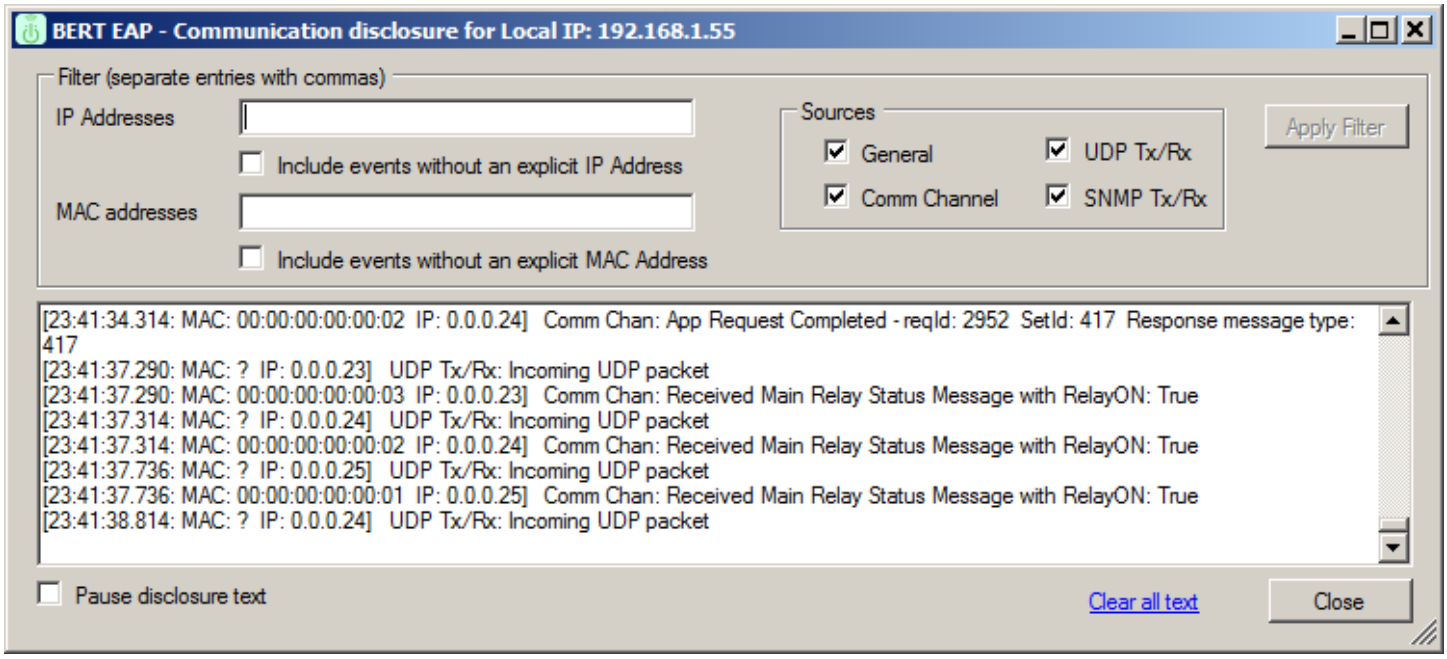
BERT Enterprise Application Help: Not implemented yet.

Enterprise Application Event Log: This provides a common log of events pertaining to the EAP. Events include BERT events, group additions/removals, IP changes, etc.


BERT Enterprise Application - Application Event Log
Newest first
Oldest first
Date Range
Today
3/ 6/2011
3/ 6/2011
Refresh
Local Time
Event Type
BERT
Event Description
3/6/2011 10:51:42 PM
Group deleted by User
-
Group with tag: 2 and name "New Group #000...
3/6/2011 10:28:15 PM
Predefined schedule added
-
User added a new Predefined schedule with T...
3/6/2011 9:58:28 PM
BERT removed from Group
-
Bert with MAC Address - 00:00:00:00:00:01 - an...
3/6/2011 9:58:22 PM
BERT added to Group
Floor 1 corner office ...
BERT with MAC Address - 00:00:00:00:00:01 - a...
3/6/2011 9:58:12 PM
Group added by User
-
Group with tag: 2 and initial name "New Grou...
3/6/2011 9:49:40 PM
BERT added to Group
Floor 1 executive offi...
BERT with MAC Address - 00:00:00:00:00:03 - a...
3/6/2011 9:49:35 PM
BERT updated by User
Floor 1 executive offi...
User updated BERT with MAC Address: 00:00:0...
3/6/2011 9:49:00 PM
BERT added to Group
Floor 2 Printer 3000
BERT with MAC Address - 00:00:00:00:00:02 - a...
3/6/2011 9:48:56 PM
BERT updated by User
Floor 2 Printer 3000
User updated BERT with MAC Address: 00:00:0...
3/6/2011 9:48:44 PM
BERT updated by User
Floor 1 corner office ...
User updated BERT with MAC Address: 00:00:0...
3/6/2011 9:48:26 PM
BERT updated by User
Floor 1 corner office ...
User updated BERT with MAC Address: 00:00:0...
3/6/2011 9:48:12 PM
BERT added to Group
Floor 1 corner office ...
BERT with MAC Address - 00:00:00:00:00:01 - a...
3/6/2011 9:46:14 PM
Group renamed by User
-
Group with tag: 1 renamed to "Floot 2 printers...
3/6/2011 9:46:07 PM
Group added by User
-
Group with tag: 1 and initial name "New Grou...
Event Details
Event Timestamp: 3/6/2011 8:16:31 PM (UTC: 3/7/2011 4:16:31 AM)
Event Type: BERT updated by User
BERT: Floor 1 corner office lamps (HP Officejet 3000) { MAC Address: 00:00:00:00:00:01 }
Description: User updated BERT with MAC Address: 00:00:00:00:00:01 and Name: Floor 1 Hallway Printer
Close

Service Utilities: New Disclosure Window for xxx.xxx.xx.x (host EAP computer IP address): This serves mainly as an advanced test and troubleshooting tool. This tool logs UDP and TCP traffic passing between the EAP and BERT units. It is recommended to leave the Filter section set to defaults.

For example, if a BERT isn't working properly, the administrator can determine if the BERT unit is communicating with the EAP application on the host computer.


BERT EAP - Communication disclosure for Local IP: 192.168.1.55
Filter (separate entries with commas)
IP Addresses
Include events without an explicit IP Address
MAC addresses
Include events without an explicit MAC Address
Sources
General
UDP Tx/Rx
Comm Channel
SNMP Tx/Rx
Apply Filter
[23:41:34.314: MAC: 00:00:00:00:00:02 IP: 0.0.0.24] Comm Chan: App Request Completed - reqId: 2952 SetId: 417 Response message type: 417
[23:41:37.290: MAC: ? IP: 0.0.0.23] UDP Tx/Rx: Incoming UDP packet
[23:41:37.290: MAC: 00:00:00:00:00:03 IP: 0.0.0.23] Comm Chan: Received Main Relay Status Message with RelayON: True
[23:41:37.314: MAC: ? IP: 0.0.0.24] UDP Tx/Rx: Incoming UDP packet
[23:41:37.314: MAC: 00:00:00:00:00:02 IP: 0.0.0.24] Comm Chan: Received Main Relay Status Message with RelayON: True
[23:41:37.736: MAC: ? IP: 0.0.0.25] UDP Tx/Rx: Incoming UDP packet
[23:41:37.736: MAC: 00:00:00:00:00:01 IP: 0.0.0.25] Comm Chan: Received Main Relay Status Message with RelayON: True
[23:41:38.814: MAC: ? IP: 0.0.0.24] UDP Tx/Rx: Incoming UDP packet
Pause disclosure text
Clear all text
Close

About: Lists the current EAP version and publisher information.

4 Basic troubleshooting

Refer to the previous Section 3.3.7 for troubleshooting tools. Event logs and networking tools are available to assist advanced users troubleshoot challenges.

Here are other basic troubleshooting tips:

Problem	Possible Solution
BERT plug reports "No Communication" Status	Confirm that the BERT is within range of your wireless router. This can be done by moving the unit to a known-good location to test communication.
BERT plug does not appear on EAP after provisioning	Check communications disclosure; if there are no visible UDP packets, check your firewall settings.
BERT plug does not appear on EAP after provisioning	Check provisioning log for errors; re-provision.

* END OF DOCUMENT *